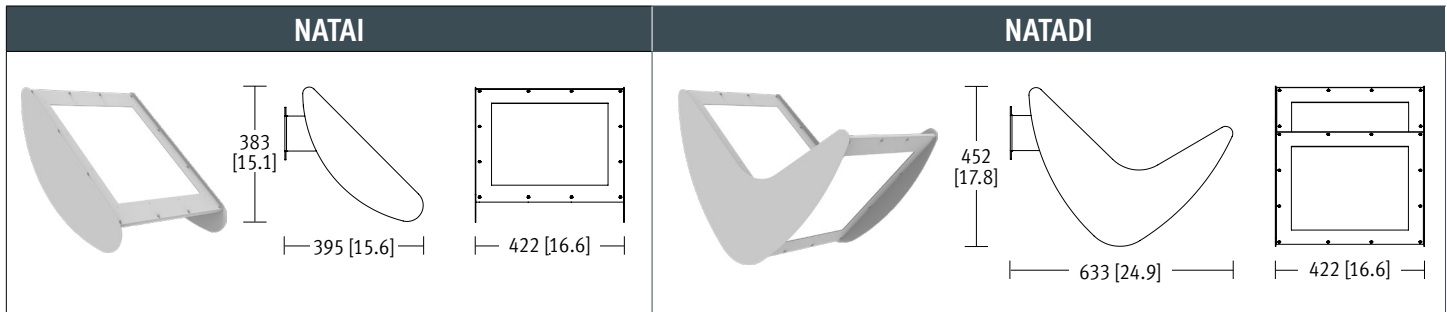


Nata

NATAI Indirect
NATADI Direct/Indirect



CAT #:	NOTES:
PREP BY:	
DATE:	
PROJECT:	
TYPE:	



ORDERING STEPS: 1. Complete **ORDERING LOGIC** 2. Complete **MOUNTING KITS** selection

1. ORDERING LOGIC

NATAI (Indirect)

Example Part Number: NATAI-18L40K-LC-NW-L21-1-R-90

NATA		I	Optics		NC			1																			
QTY	Series	Model/Size	Color Temp	Up	Down	Finish	LL/Driver	Circuitry	Voltage	Controls	Driver Loc.	Options															
Model/Size		Optics Down		Light Level (LL) / Driver				Circuitry		Driver Location																	
I = Indirect Only		_ = None (leave space empty)		Performance at 4000K				1 = 1 Circuit		I = Integral																	
Color Temp		Finish		<table border="1"> <thead> <tr> <th>Light Level</th> <th>Wattage</th> <th>Lumens</th> <th>Efficacy</th> </tr> </thead> <tbody> <tr> <td>L1</td> <td>128.6</td> <td>15506</td> <td>121</td> </tr> <tr> <td>L2*</td> <td>242</td> <td>26265</td> <td>109</td> </tr> </tbody> </table>				Light Level	Wattage	Lumens	Efficacy	L1	128.6	15506	121	L2*	242	26265	109	1 = 120 V		R = Remote					
Light Level	Wattage	Lumens	Efficacy																								
L1	128.6	15506	121																								
L2*	242	26265	109																								
18L30K = 3000K		NW = Natatorium White		* L2 is remote only				2 = 277 V		90 = 90 CRI																	
18L35K = 3500K		NC = Natatorium Custom		<table border="1"> <thead> <tr> <th colspan="3">Lumen Adjustment Factor</th> </tr> <tr> <th>Color Temp</th> <th>80 CRI</th> <th>90 CRI</th> </tr> </thead> <tbody> <tr> <td>3000K</td> <td>0.953</td> <td>0.846</td> </tr> <tr> <td>3500K</td> <td>0.969</td> <td>0.848</td> </tr> <tr> <td>4000K</td> <td>1.000</td> <td>0.852</td> </tr> </tbody> </table>				Lumen Adjustment Factor			Color Temp	80 CRI	90 CRI	3000K	0.953	0.846	3500K	0.969	0.848	4000K	1.000	0.852	3 = 347 V		_ = None (leave space empty)		
Lumen Adjustment Factor																											
Color Temp	80 CRI	90 CRI																									
3000K	0.953	0.846																									
3500K	0.969	0.848																									
4000K	1.000	0.852																									
18L40K = 4000K		Specify RAL#:						4 = UNV (120 - 277 V)																			
Optics Up								Controls																			
NC = Nata Clear Lens								_ = None (leave space empty)																			

NATADI (Direct/Indirect)

Example Part Number: NATADI-22L40K-NCM-NW-L21-1-I-90

NATA		DI	Optics		NC	M																					
QTY	Series	Model/Size	Color Temp	Up	Down	Finish	LL/Driver	Circuitry	Voltage	Controls	Driver Loc.	Options															
Model/Size		Optics Down		Light Level (LL) / Driver				Circuitry		Controls																	
DI = Direct/Indirect		M = Meta Ice		Performance at 4000K				1 = 1 Circuit		_ = None (leave space empty)																	
Color Temp		Finish		<table border="1"> <thead> <tr> <th>Light Level</th> <th>Wattage</th> <th>Lumens</th> <th>Efficacy</th> </tr> </thead> <tbody> <tr> <td>L1</td> <td>128</td> <td>15611</td> <td>122</td> </tr> <tr> <td>L2</td> <td>236</td> <td>26843</td> <td>114</td> </tr> </tbody> </table>				Light Level	Wattage	Lumens	Efficacy	L1	128	15611	122	L2	236	26843	114	UD = Up / Down Switching (Consult factory)		Driver Location					
Light Level	Wattage	Lumens	Efficacy																								
L1	128	15611	122																								
L2	236	26843	114																								
22L30K = 3000K		NW = Natatorium White		<table border="1"> <thead> <tr> <th colspan="3">Lumen Adjustment Factor</th> </tr> <tr> <th>Color Temp</th> <th>80 CRI</th> <th>90 CRI</th> </tr> </thead> <tbody> <tr> <td>3000K</td> <td>0.953</td> <td>0.846</td> </tr> <tr> <td>3500K</td> <td>0.969</td> <td>0.848</td> </tr> <tr> <td>4000K</td> <td>1.000</td> <td>0.852</td> </tr> </tbody> </table>				Lumen Adjustment Factor			Color Temp	80 CRI	90 CRI	3000K	0.953	0.846	3500K	0.969	0.848	4000K	1.000	0.852	1 = 120 V		I = Integral		
Lumen Adjustment Factor																											
Color Temp	80 CRI	90 CRI																									
3000K	0.953	0.846																									
3500K	0.969	0.848																									
4000K	1.000	0.852																									
22L35K = 3500K		NC = Natatorium Custom						2 = 277 V		R = Remote ¹																	
22L40K = 4000K		Specify RAL#:						3 = 347 V		Options																	
Optics Up								4 = UNV (120 - 277 V)		90 = 90 CRI																	
NC = Nata Clear Lens										_ = None (leave space empty)																	

1. Not available with Quad Pendant Mounting.

APPROVALS Signature _____ Date _____

FILE NAME: NATA_SPEC_SHEET_20180622

570 Southgate Drive, Guelph, Ontario N1G 4P6
Mailing Address: P.O. Box 1779 Guelph, Ontario, N1H 6Z9

1.800.621.6785 | T 519.822.4381 | F 519.822.4589
www.metalumen.com

Metalumen

2. MOUNTING KITS

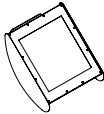

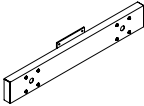
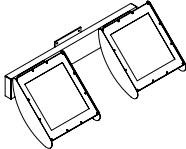
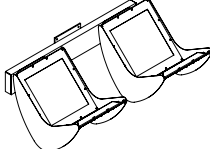
WALL MOUNT

Single wall mount included.

Specify appropriate mounting kit for all other applications.

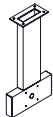
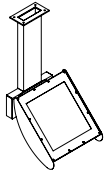
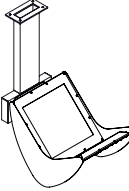
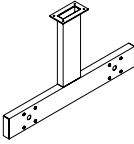
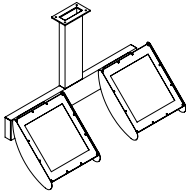
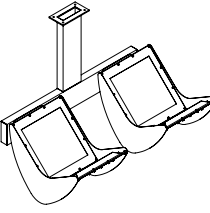
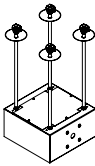
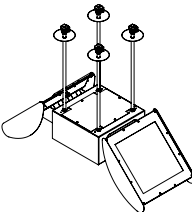
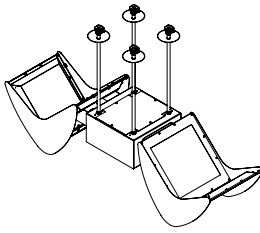
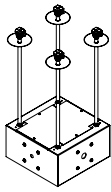
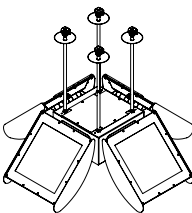
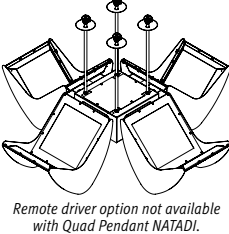
(Driver location is selected in Ordering Logic)

<input type="checkbox"/>	NATADW-I	<input type="checkbox"/>
QTY	Wall Mount (Integral Driver)	FINISH*
<input type="checkbox"/>	NATADW-R	<input type="checkbox"/>
QTY	Wall Mount (Remote Driver)	FINISH*

	MOUNTING KIT	INDIRECT	DIRECT/INDIRECT
SW Single Wall	Single wall mount included. Specify appropriate mounting kit for all other applications. (Driver location is selected in Ordering Logic.)		
DW Double Wall			

PENDANT MOUNT

<input type="checkbox"/>	NATASA-I	<input type="checkbox"/>	<input type="checkbox"/>
QTY	Pendant Mount (Integral Driver)	Indicate arm length (Max. 5 ft**)	FINISH*
<input type="checkbox"/>	NATASA-R	<input type="checkbox"/>	<input type="checkbox"/>
QTY	Pendant Mount (Remote Driver)	Indicate arm length (Max. 5 ft**)	FINISH*
<input type="checkbox"/>	NATADA-I	<input type="checkbox"/>	<input type="checkbox"/>
QTY	Pendant Mount (Integral Driver)	Indicate arm length (Max. 5 ft**)	FINISH*
<input type="checkbox"/>	NATADA-R	<input type="checkbox"/>	<input type="checkbox"/>
QTY	Pendant Mount (Remote Driver)	Indicate arm length (Max. 5 ft**)	FINISH*
<input type="checkbox"/>	NATADP-I	<input type="checkbox"/>	<input type="checkbox"/>
QTY	Pendant Mount (Integral Driver)	Indicate arm length (Max. 5 ft**)	FINISH*
<input type="checkbox"/>	NATADP-R	<input type="checkbox"/>	<input type="checkbox"/>
QTY	Pendant Mount (Remote Driver)	Indicate arm length (Max. 5 ft**)	FINISH*
<input type="checkbox"/>	NATAQP-I	<input type="checkbox"/>	<input type="checkbox"/>
QTY	Pendant Mount (Integral Driver)	Indicate arm length (Max. 5 ft**)	FINISH*
<input type="checkbox"/>	NATAQP-R	<input type="checkbox"/>	<input type="checkbox"/>
QTY	Pendant Mount (Remote Driver)	Indicate arm length (Max. 5 ft**)	FINISH*

SA Single (Arm) Pendant			
DA Double (Arm) Pendant			
DP Double Pendant			
QP Quad Pendant			 <i>Remote driver option not available with Quad Pendant NATADI.</i>

** Maximum length from ceiling surface to top of fixture. Custom lengths available upon request.

AW7 ADAPTER BRACKET

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AB
QTY	Fill as per above Mount selection	Indicate arm length (Max. 5 ft**) (For Pendant)	FINISH*	AW7 Adapter Bracket

*FINISH
NW = Natorium White
NC = Natorium Custom <i>Specify RAL#</i>

SPECIFICATIONS

Due to the Continuous Improvement Policy at Metalumen, we reserve the right to change our specifications without notice.

Housing: Fixture body is constructed using aluminum sheet, with 1.63mm (14 gauge aluminum sheet metal) nominal wall thickness.

Optical System: MetaLED high flux, high efficacy, LED technology in conjunction with high efficiency reflectors and high transmittance lenses create controlled asymmetric distribution with comfortable, low-glare illumination.

CRI: 80 minimum for all CCTs in standard configurations.

Lumen Maintenance: At an ambient operating temperature of 25°C the LED lifetime expectancy > 54,000 hrs for L70.

Finish: White paint with a coating suitable for natatoriums is standard. Custom natatorium finish also available.

Weight: See chart below.

Mounting: Standard hanger lengths are 2, 3, 4 and 5ft. Consult factory for custom lengths.

Pendant mounting is available with hangers in four options:

- single arm pendant mount
- double arm pendant mount
- double pendant mount
- quad pendant mount

Wall mounting is available in two options:
 - single wall mount
 - double wall mount

Electrical: 120V or 277V/347 V prewired. Standard drivers feature electronic universal voltage (120-277V, 347V/50-60 Hz), greater than 0.9 power factor, less than 20% harmonic distortion, and

ambient temperature range of 35 °C (95 °F) to minimum starting temp of -40 °C (-40 °F). 0-10V dimming standard with DALI option available for 120-277V. Max amp draw @120V is 2.03Amps, @277V is 0.88Amps, @347 is 0.7Amps.

Approvals: This product is cULus listed.
Environment: Suitable for wet locations. IP65 rated.

WEIGHT					
FIXTURE TYPE	NATADI (Direct-Indirect)		NATAI (Indirect)		Weight of brackets / hangers
	Integral Fixture	Remote Fixture	Integral Fixture	Remote Fixture	
Single Wall	10 kg [22.2 lbs]	7.5 kg [16.5 lbs] <i>(stand alone weight)</i>	6 kg [13.3 lbs]	4 kg [8.8 lbs] <i>(stand alone weight)</i>	
Double Wall	24.8 kg [54.6 lbs]	19.8 kg [43.6 lbs]	16.8 kg [37.0 lbs]	12.8 kg [28.1 lbs]	4.8 kg [10.5 lbs]
Single Arm (max. length 5 ft)	16.8 kg [36.9 lbs]	14.3 kg [31.4 lbs]	12.8 kg [28.2 lbs]	10.8 kg [23.7 lbs]	6.75 kg [14.9 lbs]
Double Arm (max. length 5 ft)	29.3 kg [64.7 lbs]	24.3 kg [53.7 lbs]	21.3 kg [47.1 lbs]	17.3 kg [38.2 lbs]	9.3 kg [20.6 lbs]
Double Pendant (max. length 5 ft)	30.2 kg [66.5 lbs]	25.2 kg [55.4 lbs]	22.2 kg [48.9 lbs]	18.2 kg [40.0 lbs]	10.2 kg [22.4 lbs]
Quad Pendant (max. length 5 ft)	50.5 kg [111.3 lbs]	40.5 kg [89.2 lbs]	34.5 kg [76.2 lbs]	26.5 kg [58.4 lbs]	10.5 kg [23.1 lbs]

WARRANTY

Metalumen will warrant defective luminaires for 5 years from date of purchase. Warranty is valid if luminaire is installed and used according to specification. If defective, Metalumen will send replacement boards or drivers at no cost along with detailed replacement instructions and instructions on how to return defective components to Metalumen.

FEATURES

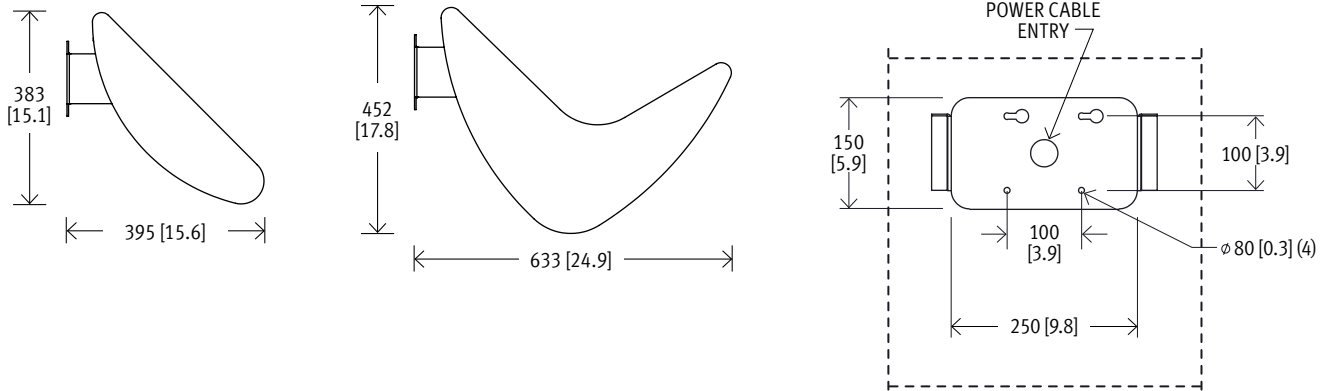


EDULUMEN // Educational Lighting

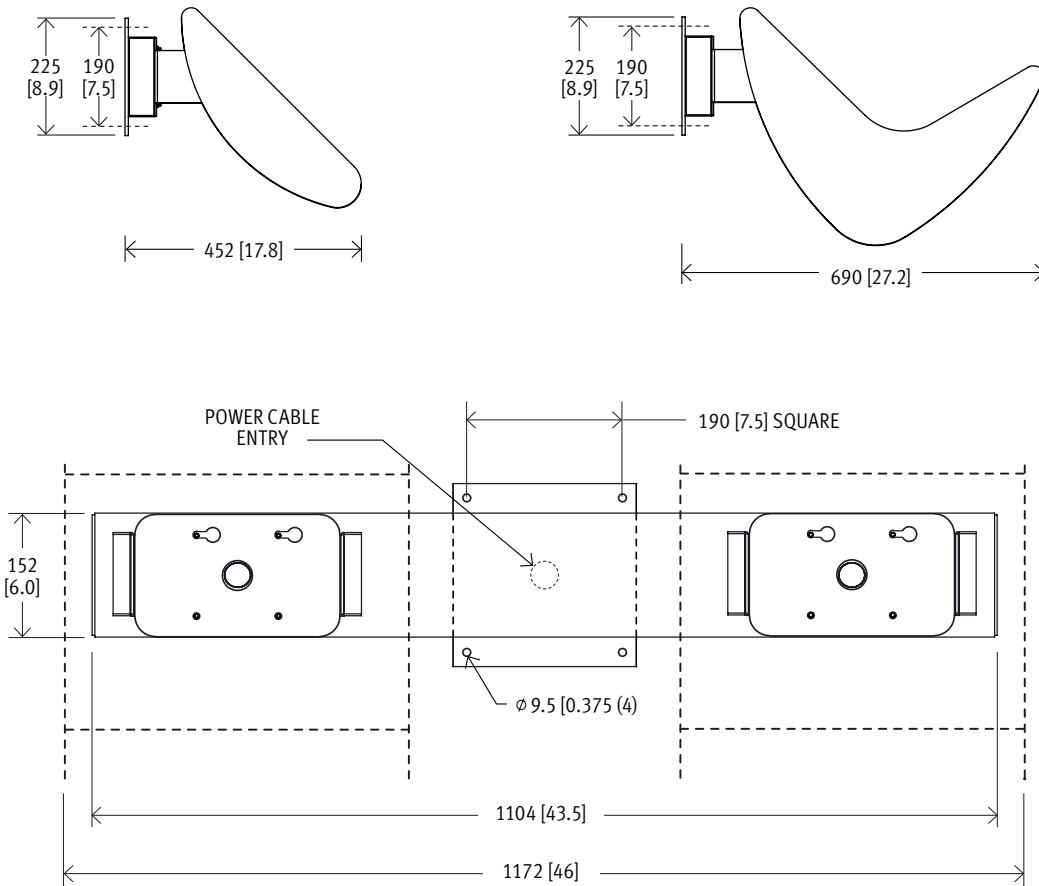
Edulumen is a collection of premium luminaires that maximize both the functionality and performance of any educational facility. Based on maximum efficiency, integration of controls and exceptional design, Edulumen will earn high marks for meeting your requirements. Metalumen is dedicated to creating sustainable environments that foster enhanced educational experiences.

MOUNTING ARRANGEMENTS - WALL

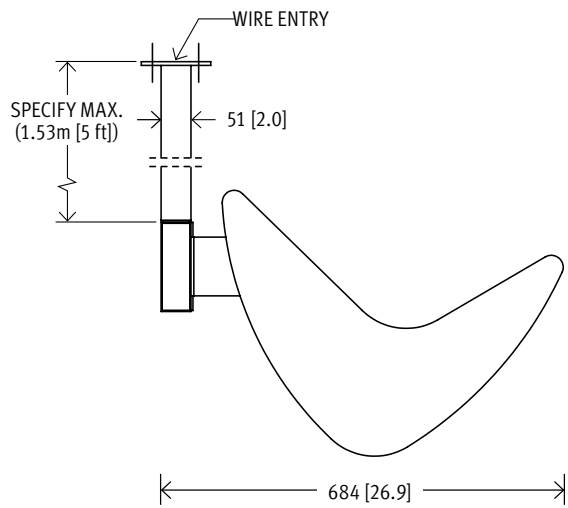
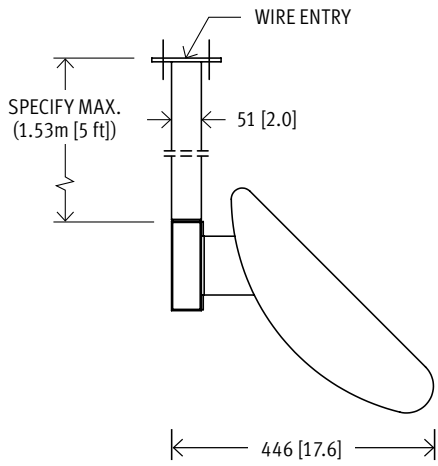
SW - SINGLE WALL



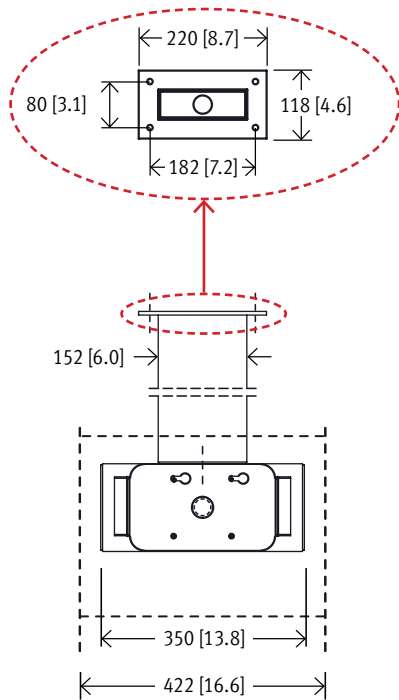
DW - DOUBLE WALL



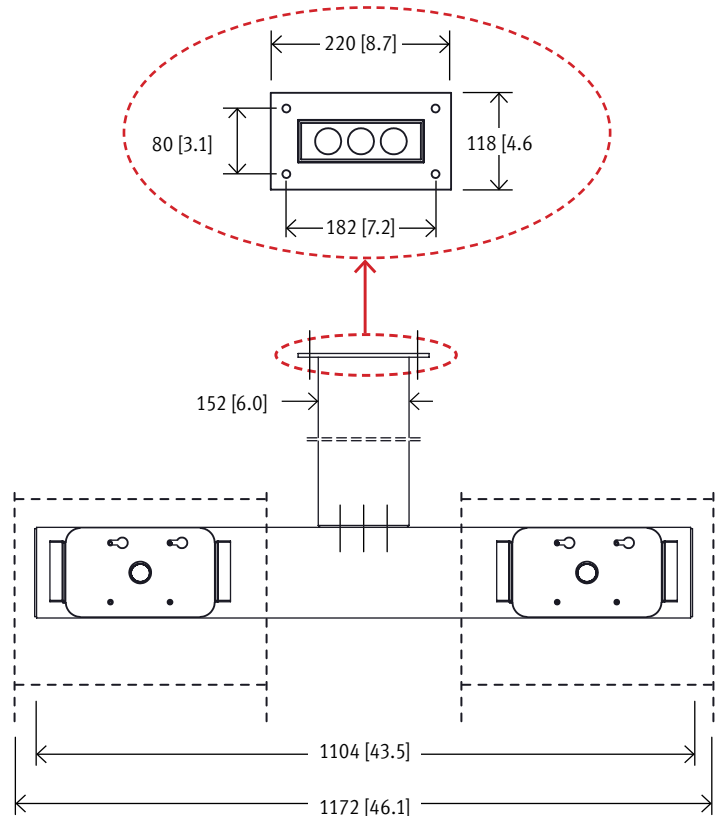
MOUNTING ARRANGEMENTS - PENDANT ARM



SA - SINGLE ARM

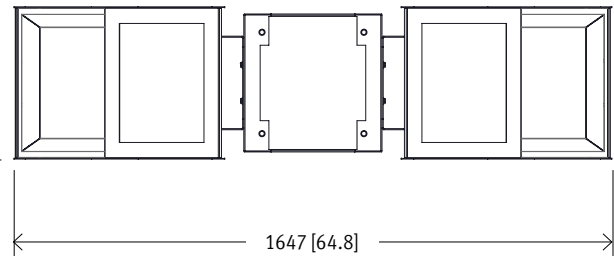
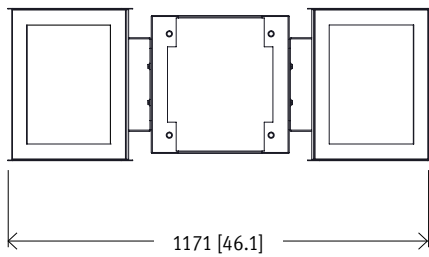
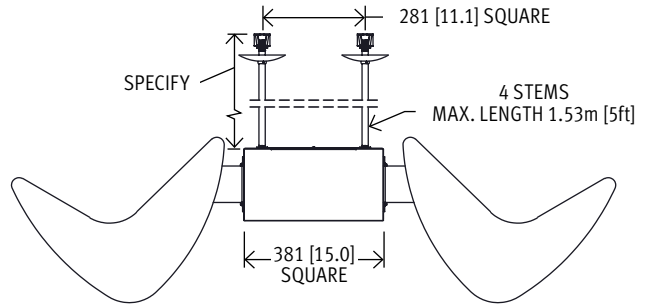
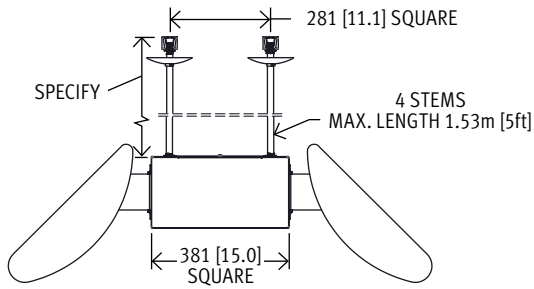


DA - DOUBLE ARM



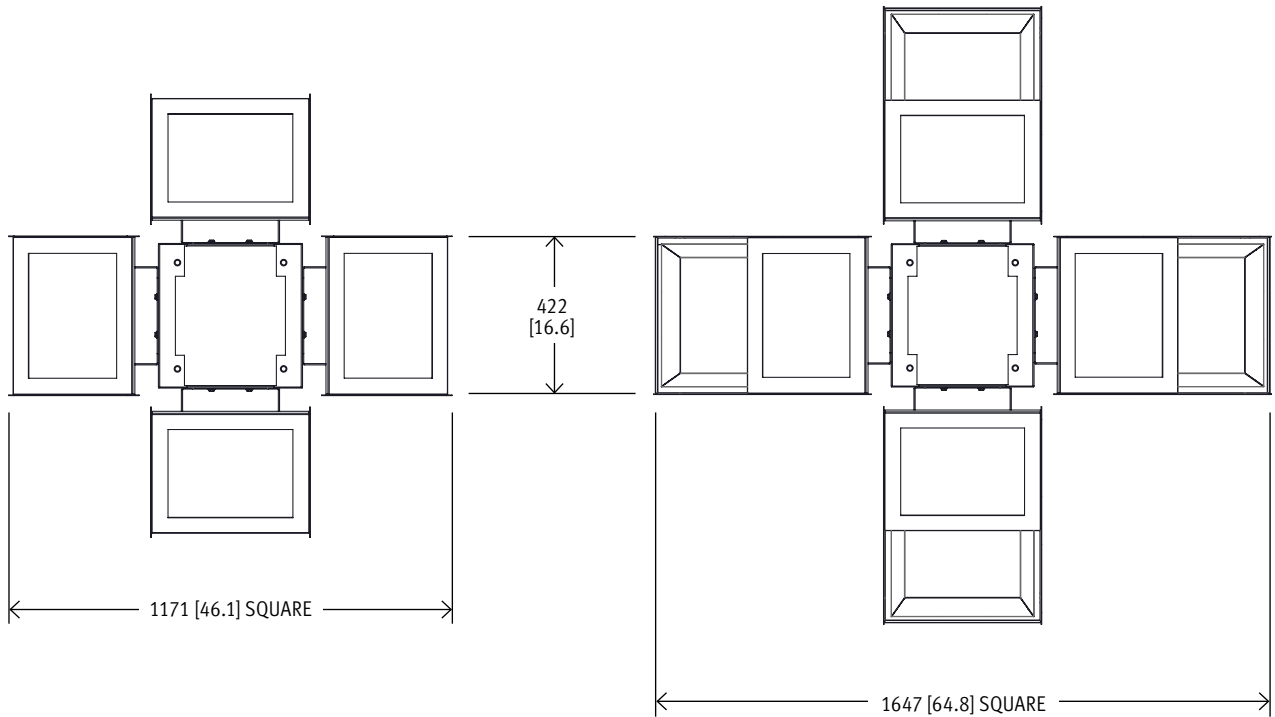
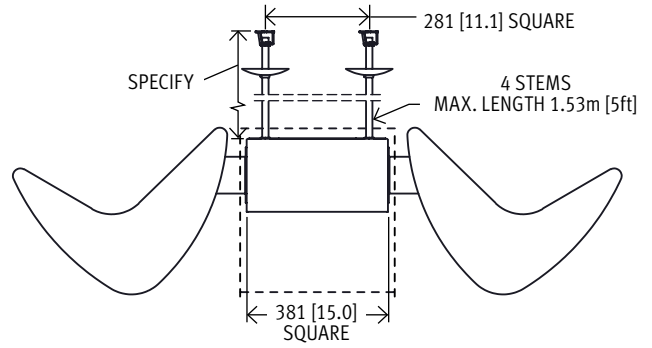
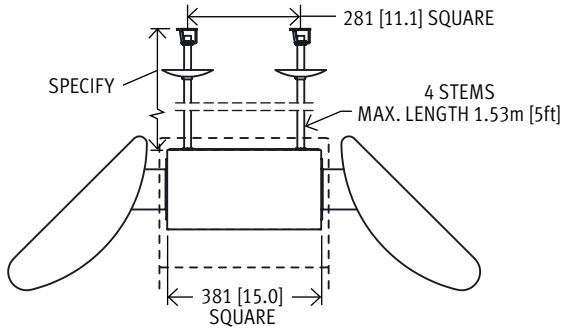
MOUNTING ARRANGEMENTS - PENDANT

DP - DOUBLE PENDANT



MOUNTING ARRANGEMENTS

QP - Quad Pendant



PHOTOMETRIC DATA - 4000K - NATAI

L1

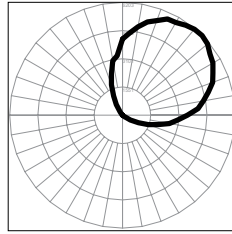
File Name: NATAI-18L40K-NC-L1
 Luminaire Lumens: 15506
 Total Watts: 129
 Efficacy: 121 lms/W
 Optics Up: Nata Clear Lens

COEFFICIENTS OF UTILIZATION

Zonal Cavity Method | Effective Floor Cavity Reflectance = .20

RC RW	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	10
RCR	98	98	98	98	85	85	85	85	61	61	61	61
0	86	81	77	73	74	70	66	63	50	47	45	45
1	78	70	63	58	67	60	55	50	42	39	36	36
2	71	61	53	47	61	53	46	41	37	33	29	29
3	64	54	46	40	55	46	40	34	33	28	24	24
4	59	47	39	33	50	41	34	29	29	24	21	21
5	54	42	34	29	46	37	30	25	26	21	18	18
6	50	38	30	25	43	33	26	21	23	19	15	15
7	46	34	27	21	39	30	23	19	21	16	13	13
8	43	31	24	19	37	27	21	16	19	15	12	12
9	40	28	21	16	34	24	18	14	17	13	10	10

PHOTOMETRIC CURVE



LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angle		
	0	45	90
45	3	0	0
55	798	34	0
65	4513	685	0
75	10079	2978	0
85	17364	6971	19

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	0	0	0	0	0
5	0	0	0	0	0
10	0	0	0	0	0
15	0	0	0	0	0
20	0	0	0	0	0
25	0	0	0	0	0
30	0	0	0	0	0
35	0	0	0	0	0
40	0	0	0	0	0
45	0	0	0	0	0
50	56.94	26.44	0	0	0
55	181.91	99.73	9.42	0.2	0
60	512.57	314.88	55.77	0	0
65	979.28	701.56	185.58	2.24	0
70	1511.1	1163.37	436.37	21.63	0
75	2009.4	1651.45	764.9	76.93	0
80	2623.77	2206.5	1176.99	207.81	0
85	3050.32	2668.65	1638.04	434.07	3.15
90	3573.36	3145.83	2066.61	731.57	22.83
95	4170.68	3740.89	2603.13	1086.87	82.16
100	4531.98	4167.76	3015.45	1458.18	188.5
105	4894.74	4554	3429.2	1792.83	377.82
110	5274.33	4907.39	3785.11	2201.24	641.74
115	5489.01	5158.83	4091.07	2569.09	936.34
120	5745.52	5403.99	4395.57	2888.55	1255.5
125	5871.69	5607.73	4652.74	3210.94	1598.24
130	6106.22	5723.22	4926.93	3481.95	1963.91
135	6202.86	5842.6	5028.56	3744.32	2308.82
140	6165.3	5826.46	5134.73	4004.56	2634.73
145	6044.57	5813.46	5202.76	4233.86	2925.64
150	5880.89	5713.17	5224.16	4350.93	3235.5
155	5842.9	5650.13	5234.32	4422.63	3508.35
160	5534.62	5410.6	5017.82	4507.24	3671.57
165	5314.35	5196.49	4880.7	4384.54	3871.43
170	4933.25	4810.38	4729.91	4366.15	4022.51
175	4528.09	4491.43	4579.86	4302.3	4121.39
180	4187.8	4187.8	4187.8	4187.8	4187.8

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-20	0.00	0.00
0-30	0.01	0.00
0-40	0.02	0.00
0-50	0.02	0.00
0-60	32.27	0.20
0-80	685.08	4.40
0-90	1544.5	10.00
10-90	1544.49	10.00
20-40	0.02	0.00
20-50	1.44	0.00
40-70	212.10	1.40
60-80	652.80	4.20
70-80	472.95	3.00
80-90	859.42	5.50
90-110	2964.66	19.10
90-120	4894.46	31.50
90-130	6951.75	44.80
90-150	10899.37	70.20
90-180	13971.33	90.00
110-180	11006.68	70.90
0-180	15515.83	100.00

L2

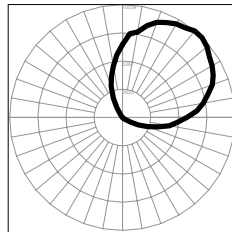
File Name: NATAI-18L40K-NC-L2
 Luminaire Lumens: 26265
 Total Watts: 242
 Efficacy: 109 lms/W
 Optics Up: Nata Clear Lens

COEFFICIENTS OF UTILIZATION

Zonal Cavity Method | Effective Floor Cavity Reflectance = .20

RC RW	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	10
RCR	98	98	98	98	85	85	85	85	61	61	61	61
1	86	81	77	73	74	70	66	63	50	47	45	45
2	78	70	63	58	67	60	55	50	42	39	36	36
3	71	61	53	47	61	53	46	41	37	33	29	29
4	64	54	46	40	55	46	40	34	33	28	24	24
5	59	47	39	33	51	41	34	29	29	24	21	21
6	54	42	34	29	46	37	30	25	26	21	18	18
7	50	38	30	25	43	33	26	21	23	19	15	15
8	46	34	27	21	39	30	23	19	21	16	13	13
9	43	31	24	19	37	27	21	16	19	15	12	12
10	40	28	21	16	34	24	18	14	17	13	10	10

PHOTOMETRIC CURVE



LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angle		
	0	45	90
45	9	0	0
55	1327	63	0
65	7687	1151	0
75	17137	4975	0
85	29442	11640	33

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	.68	.68	.68	.68	.68
5	0	0	0	0	0
10	0	0	0	0	0
15	0	0	0	0	0
20	0	0	0	0	0
25	0	0	0	0	0
30	0	0	0	0	0
35	0	0	0	0	0
40	0	0	0	0	0
45	2.11	0	0	0	0
50	92.05	46.93	.15	0	0
55	302.51	173.32	17.43	0	0
60	853.72	539.96	90.84	0	0
65	1667.99	1174.15	311.97	3.39	0
70	2517.07	1981.92	712.45	35.74	0
75	3416.45	2768.14	1277.96	139.48	0
80	4440.78	3718.55	2041.71	357.96	0
85	5172.17	4507.28	2735.16	724.29	5.52
90	6033	5338.61	3495.07	1231.02	39.21
95	6997.77	6432.24	4416.92	1855.06	136.88
100	7666.03	7054.35	5108.36	2484.6	323.04
105	8260.8	7644.95	5783.68	3083.79	633.37
110	8951.43	8238.32	6407.58	3712.93	1084.58
115	9359.31	8746.69	6904.36	4358.29	1581.12
120	9667.57	9130.04	7444.69	4928.62	2156.74
125	9906.69	9424.46	7921.67	5437.15	2731.18
130	10296.05	9747.83	8358.34	5917.81	3312.82
135	10519.01	9908.26	8583.58	6334.75	3904.86
140	10533.64	9928.69	8702.93	6803.22	4504.84
145	10213.21	9791.37	8850.5	7166.09	4947.3
150	10079.53	9765.64	8865.26	7368.14	5500.75
155	9780.68	9555.19	8699.79	7508.06	5956.96
160	9445.52	9198.13	8576.24	7637.82	6243.03
165	8893.57	8788.29	8275.55	7430.35	6492.7
170	8096.25	8276.75	7880.95	7396.81	6731.41
175	7860.17	7726.05	7595.33	7314.91	7089.63
180	6813.16	6813.16	6813.16	6813.16	6813.16

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-20	0.01	0.00
0-30	0.03	0.00
0-40	0.05	0.00
0-50	54.74	0.20
0-80	1156.18	4.40
0-90	2608.47	9.90
10-90	2608.46	9.90
20-40	0.04	0.00
20-50	2.45	0.00
40-70	357.22	1.40
60-80	1101.45	4.20
70-80	798.91	3.00
80-90	1452.28	5.50
90-110	5020.00	19.10
90-120	8287.44	31.50
90-130	11772.98	44.80
90-150	18475.7	70.30
90-180	23672.43	90.10
110-180	18652.43	71.00
0-180	26280.9	100.00

