

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P475231

Luminaire Tested: **22CZ2-24HE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475231
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-SQR-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2268.1 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

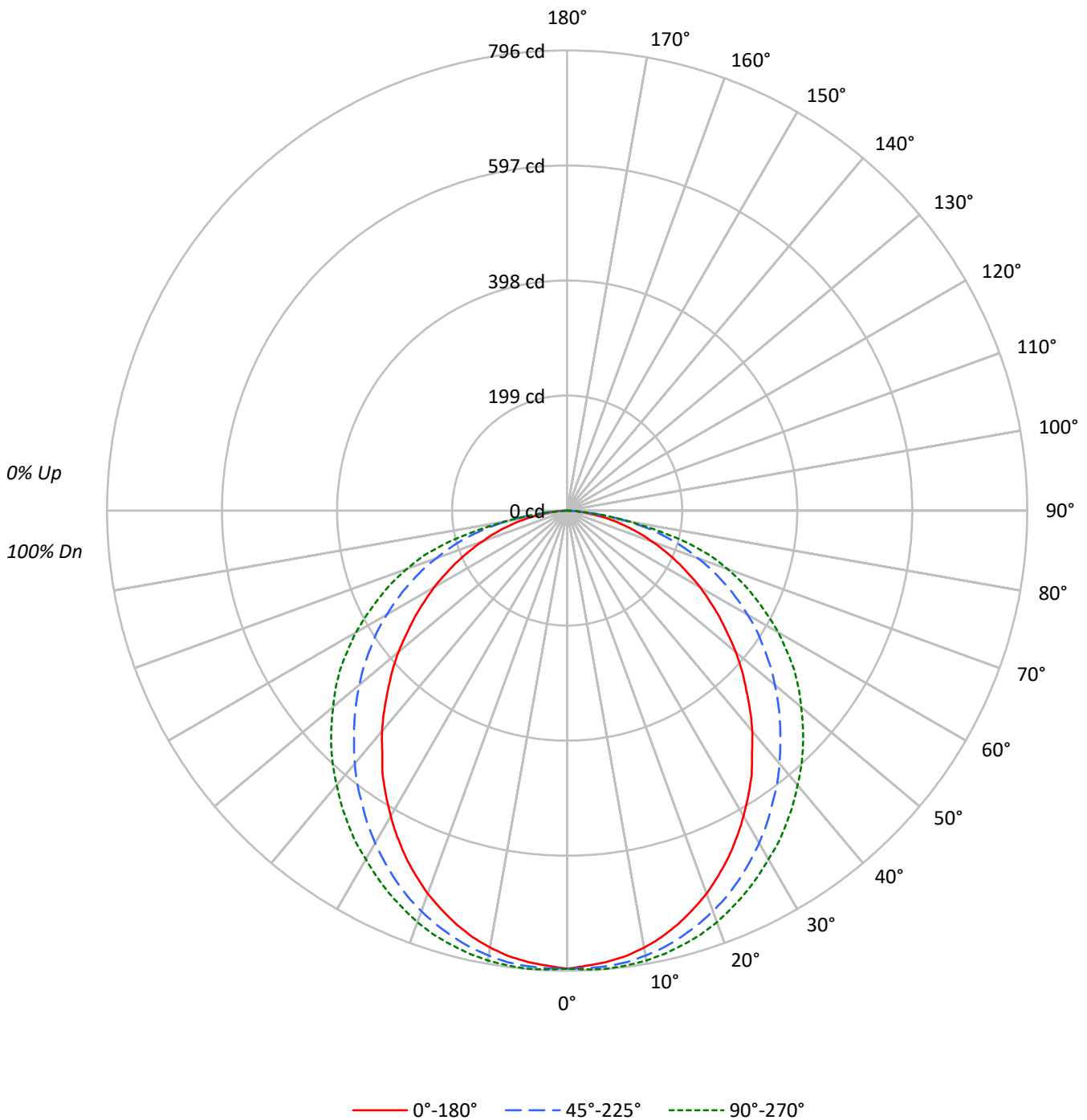
Input Watts (W): 18.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2132	2132	2132
5°	2117	2137	2149
10°	2097	2135	2159
15°	2064	2126	2165
20°	2019	2112	2170
25°	1963	2090	2167
30°	1897	2064	2164
35°	1828	2033	2171
40°	1751	2008	2178
45°	1667	1983	2196
50°	1595	1965	2213
55°	1510	1949	2248
60°	1431	1941	2271
65°	1337	1926	2289
70°	1227	1897	2320
75°	1108	1847	2237
80°	950	1635	1686
85°	766	963	766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	3.3
10°-20°	214.8	9.5
20°-30°	322.6	14.2
30°-40°	384.7	17.0
40°-50°	397.7	17.5
50°-60°	365.7	16.1
60°-70°	291.1	12.8
70°-80°	177.9	7.8
80°-90°	38.7	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	612.4	27.0
0°-40°	997.1	44.0
0°-60°	1760.5	77.6
0°-90°	2268.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2268.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	784	786	791	794	796	74
15°	741	749	763	774	777	209
25°	661	677	704	723	730	304
35°	556	580	619	651	661	347
45°	438	469	521	563	577	339
55°	322	357	416	463	479	288
65°	210	246	302	344	360	208
75°	107	138	178	209	215	114
85°	25	30	31	27	25	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	792.3	792.3	792.3	792.3	792.3
2.5°	788.0	789.0	792.3	794.5	794.5
5°	783.7	785.8	791.2	794.5	795.6
7.5°	777.3	780.5	788.0	792.3	793.5
10°	767.6	771.9	781.5	788.0	790.1
12.5°	755.7	762.1	774.0	782.6	784.8
15°	740.7	749.3	763.2	774.0	777.3
17.5°	723.4	734.1	751.4	764.4	768.7
20°	705.1	715.9	737.5	752.5	757.8
22.5°	683.6	697.6	722.3	739.6	743.9
25°	661.0	677.1	704.0	723.4	729.8
27.5°	636.2	655.6	684.7	708.4	713.8
30°	610.4	630.9	664.2	690.1	696.5
32.5°	583.4	607.2	642.7	671.7	680.4
35°	556.5	580.2	618.9	651.3	661.0
37.5°	525.3	553.3	596.4	629.8	641.6
40°	498.4	525.3	571.7	608.2	620.1
42.5°	468.3	497.3	545.8	585.6	599.6
45°	438.1	469.3	521.0	563.1	577.0
47.5°	410.1	441.3	495.2	539.4	553.3
50°	381.1	413.3	469.3	514.6	528.5
52.5°	349.9	385.4	443.5	488.7	504.9
55°	321.9	357.4	415.5	462.9	479.1
57.5°	292.8	329.4	389.8	434.9	450.0
60°	265.9	301.4	360.7	404.8	422.0
62.5°	236.8	273.4	331.5	374.6	390.8
65°	209.9	245.5	302.4	344.5	359.5
67.5°	183.0	218.6	272.3	312.2	329.4
70°	156.0	191.7	241.1	279.9	294.9
72.5°	132.5	163.7	211.0	246.6	260.5
75°	106.6	137.8	177.6	208.8	215.2
77.5°	82.9	110.9	144.3	158.2	160.5
80°	61.3	82.9	105.5	108.8	108.8
82.5°	40.9	57.1	65.6	66.7	65.6
85°	24.8	30.1	31.2	26.9	24.8
87.5°	8.6	8.6	5.4	3.2	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)