

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: P475289

Luminaire Tested: **22CZ2-24HE-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475289
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-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2395.0 lumens
Efficiency: N/A
Efficacy: 132.3 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

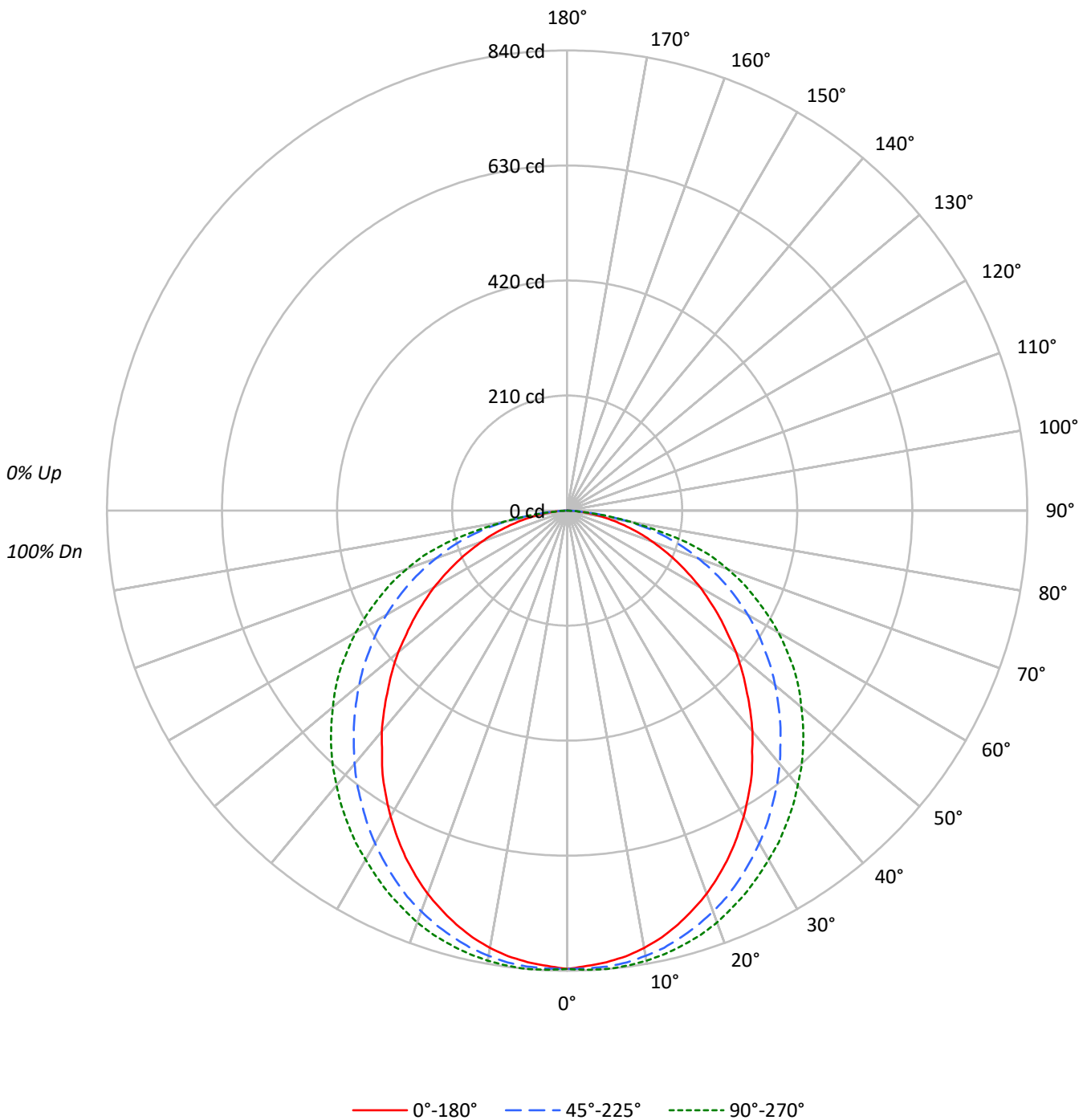
Input Watts (W): 18.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2251	2251	2251
5°	2235	2257	2269
10°	2215	2255	2280
15°	2179	2245	2287
20°	2132	2230	2292
25°	2072	2207	2288
30°	2003	2179	2285
35°	1931	2147	2293
40°	1849	2120	2300
45°	1760	2094	2319
50°	1685	2075	2336
55°	1595	2058	2373
60°	1511	2050	2399
65°	1411	2034	2417
70°	1297	2003	2450
75°	1171	1949	2363
80°	1004	1726	1779
85°	809	1019	809



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.3	3.3
10°-20°	226.8	9.5
20°-30°	340.6	14.2
30°-40°	406.2	17.0
40°-50°	420.0	17.5
50°-60°	386.1	16.1
60°-70°	307.4	12.8
70°-80°	187.8	7.8
80°-90°	40.8	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°	646.7	27.0
0°-40°	1052.9	44.0
0°-60°	1859.0	77.6
0°-90°	2395.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2395.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	837	837	837	837	837	
5°	828	830	836	839	840	78
15°	782	791	806	817	821	220
25°	698	715	743	764	771	321
35°	588	613	654	688	698	367
45°	463	496	550	595	609	358
55°	340	377	439	489	506	304
65°	222	259	319	364	380	220
75°	113	146	188	220	227	120
85°	26	32	33	28	26	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	836.6	836.6	836.6	836.6	836.6
2.5°	832.1	833.2	836.6	839.0	839.0
5°	827.5	829.8	835.5	839.0	840.1
7.5°	820.8	824.1	832.1	836.6	837.9
10°	810.6	815.1	825.3	832.1	834.3
12.5°	798.0	804.8	817.4	826.4	828.7
15°	782.1	791.2	805.9	817.4	820.8
17.5°	763.9	775.2	793.5	807.2	811.7
20°	744.5	756.0	778.7	794.6	800.2
22.5°	721.9	736.6	762.8	781.0	785.5
25°	698.0	715.0	743.4	763.9	770.7
27.5°	671.8	692.3	723.0	748.0	753.7
30°	644.5	666.2	701.4	728.7	735.5
32.5°	616.1	641.1	678.6	709.3	718.5
35°	587.7	612.7	653.6	687.8	698.0
37.5°	554.7	584.3	629.8	665.0	677.5
40°	526.3	554.7	603.6	642.3	654.8
42.5°	494.5	525.2	576.3	618.4	633.2
45°	462.6	495.6	550.2	594.6	609.3
47.5°	433.1	466.0	522.9	569.6	584.3
50°	402.4	436.5	495.6	543.4	558.1
52.5°	369.4	406.9	468.3	516.1	533.2
55°	339.9	377.4	438.7	488.8	505.9
57.5°	309.2	347.8	411.6	459.2	475.2
60°	280.8	318.2	380.9	427.4	445.7
62.5°	250.1	288.7	350.1	395.6	412.7
65°	221.6	259.2	319.4	363.8	379.6
67.5°	193.2	230.8	287.5	329.7	347.8
70°	164.8	202.4	254.6	295.6	311.4
72.5°	139.9	172.8	222.8	260.4	275.1
75°	112.6	145.5	187.5	220.5	227.3
77.5°	87.5	117.1	152.3	167.0	169.4
80°	64.8	87.5	111.4	114.8	114.8
82.5°	43.1	60.3	69.3	70.4	69.3
85°	26.2	31.8	33.0	28.4	26.2
87.5°	9.1	9.1	5.7	3.4	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)