

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: P475238

Luminaire Tested: **22CZ2-29VHE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475238
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-SQR-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2680.7 lumens
Efficiency: N/A
Efficacy: 134.7 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

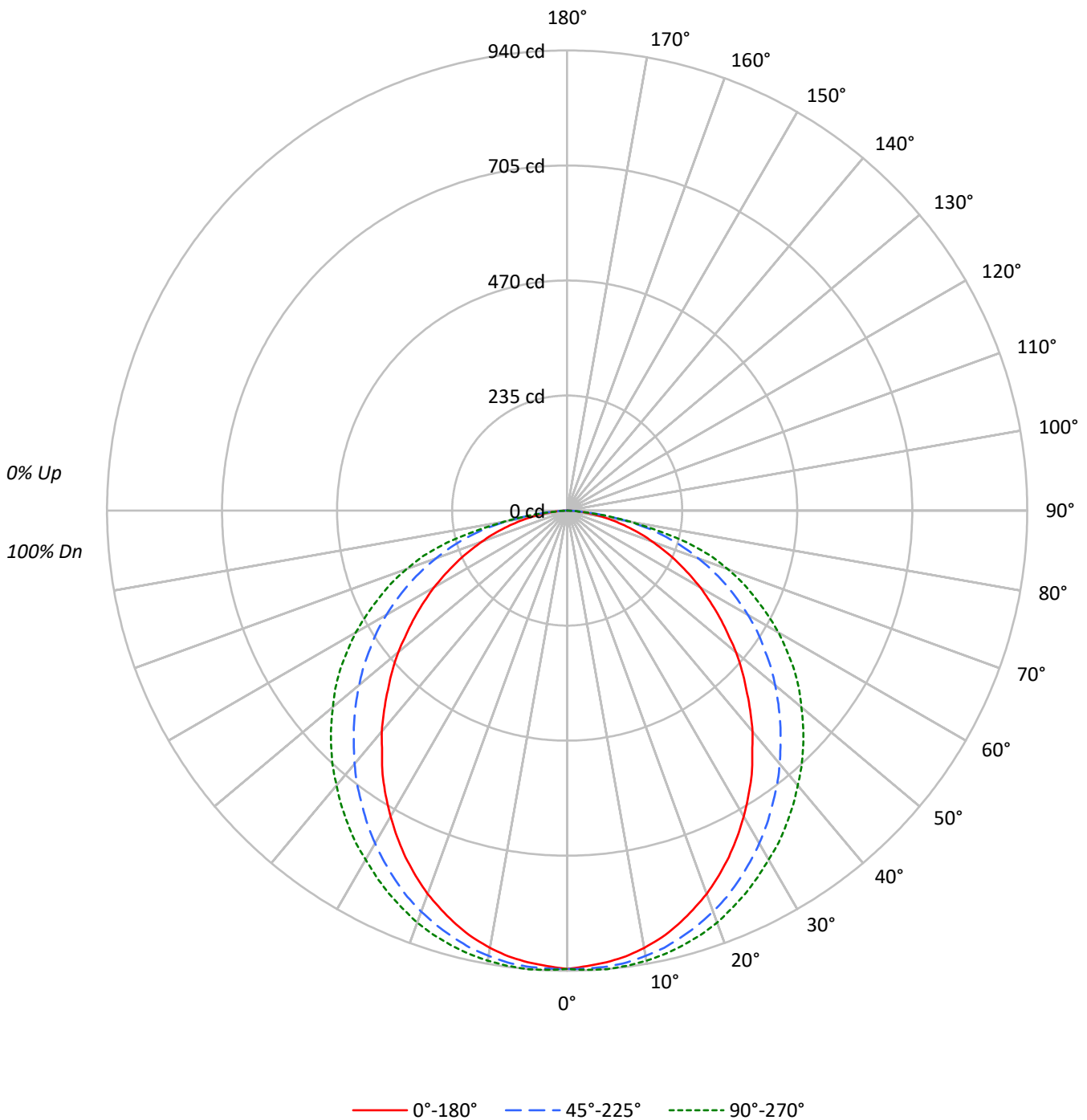
Input Watts (W): 19.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2520	2520	2520
5°	2502	2526	2540
10°	2479	2524	2552
15°	2439	2513	2559
20°	2386	2496	2565
25°	2320	2470	2561
30°	2242	2439	2558
35°	2161	2403	2566
40°	2069	2373	2575
45°	1971	2343	2595
50°	1886	2322	2615
55°	1785	2304	2656
60°	1691	2294	2685
65°	1580	2276	2706
70°	1451	2242	2743
75°	1310	2182	2645
80°	1124	1932	1991
85°	905	1139	905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	3.3
10°-20°	253.8	9.5
20°-30°	381.2	14.2
30°-40°	454.7	17.0
40°-50°	470.1	17.5
50°-60°	432.2	16.1
60°-70°	344.1	12.8
70°-80°	210.2	7.8
80°-90°	45.7	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°	723.8	27.0
0°-40°	1178.5	44.0
0°-60°	2080.7	77.6
0°-90°	2680.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2680.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	936	936	936	936	936	
5°	926	929	935	939	940	88
15°	875	886	902	915	919	247
25°	781	800	832	855	863	359
35°	658	686	732	770	781	410
45°	518	555	616	666	682	400
55°	380	422	491	547	566	340
65°	248	290	358	407	425	246
75°	126	163	210	247	254	134
85°	29	36	37	32	29	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	936.4	936.4	936.4	936.4	936.4
2.5°	931.3	932.6	936.4	939.0	939.0
5°	926.2	928.8	935.1	939.0	940.3
7.5°	918.6	922.4	931.3	936.4	937.8
10°	907.2	912.3	923.7	931.3	933.8
12.5°	893.2	900.8	914.8	925.0	927.5
15°	875.4	885.5	902.0	914.8	918.6
17.5°	855.0	867.7	888.1	903.4	908.5
20°	833.3	846.1	871.6	889.3	895.7
22.5°	808.0	824.4	853.7	874.1	879.2
25°	781.2	800.2	832.0	855.0	862.6
27.5°	751.9	774.9	809.2	837.3	843.6
30°	721.4	745.6	785.0	815.6	823.2
32.5°	689.6	717.6	759.5	793.9	804.2
35°	657.8	685.8	731.5	769.8	781.2
37.5°	620.9	654.0	704.9	744.3	758.3
40°	589.1	620.9	675.6	718.9	732.9
42.5°	553.4	587.8	645.1	692.1	708.7
45°	517.8	554.7	615.8	665.5	682.0
47.5°	484.7	521.6	585.2	637.5	654.0
50°	450.4	488.5	554.7	608.2	624.7
52.5°	413.5	455.4	524.1	577.6	596.8
55°	380.4	422.4	491.1	547.1	566.2
57.5°	346.1	389.3	460.7	514.0	531.9
60°	314.2	356.2	426.3	478.4	498.8
62.5°	279.9	323.1	391.8	442.8	461.9
65°	248.1	290.2	357.5	407.2	424.9
67.5°	216.2	258.3	321.8	369.0	389.3
70°	184.4	226.5	285.0	330.8	348.6
72.5°	156.6	193.4	249.3	291.4	307.9
75°	126.0	162.9	209.9	246.8	254.4
77.5°	98.0	131.1	170.5	187.0	189.6
80°	72.5	98.0	124.7	128.5	128.5
82.5°	48.3	67.4	77.6	78.8	77.6
85°	29.3	35.6	36.9	31.8	29.3
87.5°	10.1	10.1	6.3	3.8	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)