

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: P475243

Luminaire Tested: **22CZ2-60VHE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475243
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-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: 5538.3 lumens
Efficiency: N/A
Efficacy: 131.6 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

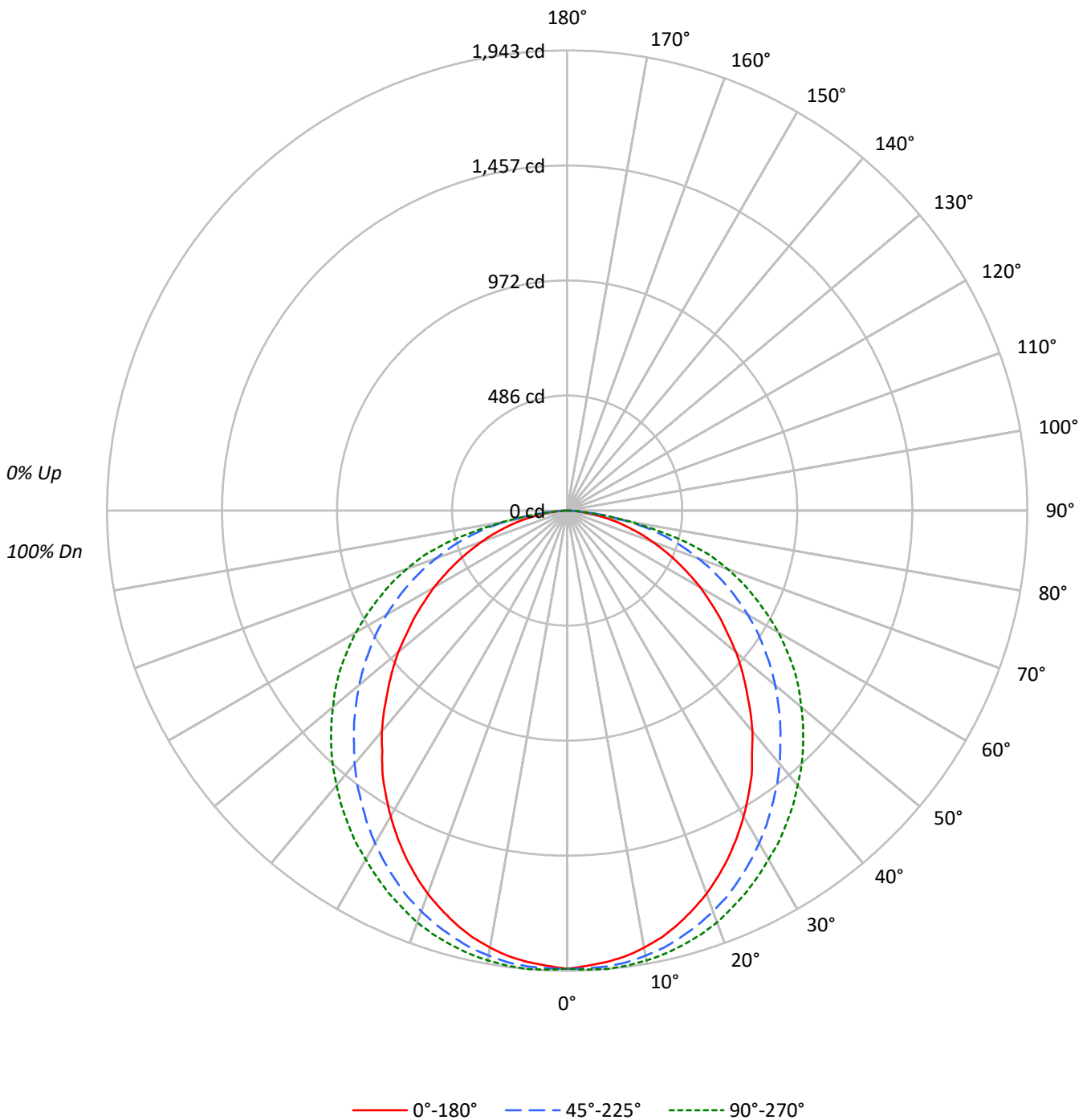
Input Watts (W): 42.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5206	5206	5206
5°	5169	5219	5248
10°	5122	5215	5272
15°	5039	5192	5287
20°	4930	5157	5299
25°	4792	5104	5291
30°	4631	5040	5285
35°	4464	4965	5302
40°	4275	4904	5319
45°	4071	4842	5362
50°	3895	4798	5403
55°	3687	4760	5489
60°	3494	4740	5546
65°	3263	4702	5589
70°	2998	4632	5666
75°	2706	4509	5465
80°	2321	3994	4116
85°	1868	2353	1868



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.4	3.3
10°-20°	524.4	9.5
20°-30°	787.6	14.2
30°-40°	939.3	17.0
40°-50°	971.2	17.5
50°-60°	892.9	16.1
60°-70°	710.8	12.8
70°-80°	434.3	7.8
80°-90°	94.4	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°	1495.4	27.0
0°-40°	2434.8	44.0
0°-60°	4298.8	77.6
0°-90°	5538.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5538.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1934	1934	1934	1934	1934	
5°	1914	1919	1932	1940	1943	181
15°	1809	1830	1864	1890	1898	509
25°	1614	1653	1719	1766	1782	742
35°	1359	1417	1511	1590	1614	848
45°	1070	1146	1272	1375	1409	827
55°	786	873	1014	1130	1170	703
65°	512	600	738	841	878	508
75°	260	336	434	510	526	277
85°	60	74	76	66	60	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1934.5	1934.5	1934.5	1934.5	1934.5
2.5°	1924.1	1926.7	1934.5	1940.1	1940.1
5°	1913.6	1918.8	1931.9	1940.1	1942.7
7.5°	1897.9	1905.8	1924.1	1934.5	1937.5
10°	1874.3	1884.8	1908.4	1924.1	1929.3
12.5°	1845.3	1861.0	1890.0	1911.0	1916.2
15°	1808.6	1829.5	1863.6	1890.0	1897.9
17.5°	1766.4	1792.6	1834.8	1866.5	1877.0
20°	1721.6	1748.1	1800.8	1837.4	1850.5
22.5°	1669.3	1703.3	1763.8	1806.0	1816.5
25°	1614.0	1653.3	1719.0	1766.4	1782.1
27.5°	1553.5	1600.9	1671.9	1729.8	1742.9
30°	1490.4	1540.4	1621.9	1685.0	1700.7
32.5°	1424.7	1482.5	1569.2	1640.2	1661.4
35°	1358.9	1416.8	1511.3	1590.5	1614.0
37.5°	1282.7	1351.1	1456.4	1537.8	1566.6
40°	1217.0	1282.7	1395.9	1485.2	1514.2
42.5°	1143.4	1214.4	1332.7	1429.9	1464.2
45°	1069.8	1146.0	1272.2	1374.9	1409.0
47.5°	1001.5	1077.7	1209.1	1317.0	1351.1
50°	930.5	1009.3	1146.0	1256.5	1290.6
52.5°	854.3	941.0	1082.9	1193.4	1233.0
55°	785.9	872.6	1014.5	1130.3	1169.9
57.5°	714.9	804.2	951.7	1062.0	1098.9
60°	649.2	735.9	880.7	988.4	1030.5
62.5°	578.2	667.5	809.5	914.8	954.3
65°	512.5	599.5	738.5	841.2	877.8
67.5°	446.8	533.7	664.9	762.4	804.2
70°	381.0	468.0	588.7	683.5	720.2
72.5°	323.4	399.6	515.1	602.1	636.1
75°	260.3	336.5	433.7	509.9	525.6
77.5°	202.4	270.8	352.2	386.3	391.8
80°	149.8	202.4	257.7	265.6	265.6
82.5°	99.8	139.3	160.3	162.9	160.3
85°	60.5	73.6	76.2	65.7	60.5
87.5°	20.9	20.9	13.1	7.9	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)