

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: P475162

Luminaire Tested: **22CZ2-90VHE-HRP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475162
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-90VHE-HRP-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7282.2 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

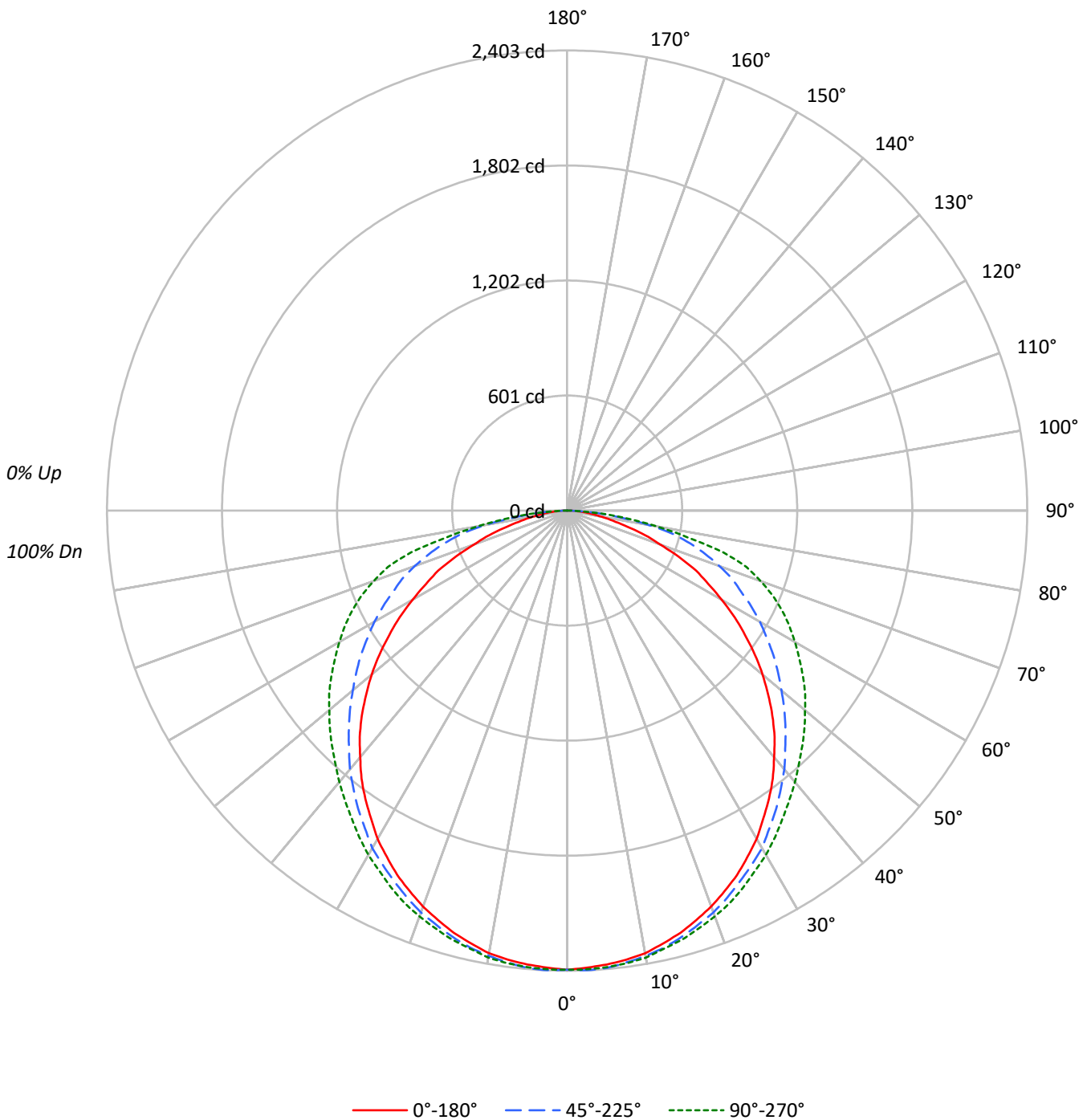
Input Watts (W): 66.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6452	6452	6452
5°	6428	6477	6465
10°	6415	6452	6478
15°	6360	6425	6463
20°	6302	6393	6458
25°	6234	6342	6452
30°	6152	6323	6452
35°	6036	6248	6444
40°	5906	6196	6503
45°	5769	6137	6608
50°	5577	6116	6788
55°	5323	6164	7048
60°	5019	6255	7393
65°	4739	6377	7899
70°	4048	6651	8457
75°	3393	6928	8789
80°	2780	6691	7332
85°	2405	4962	5388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.3	3.1
10°-20°	650.1	8.9
20°-30°	985.2	13.5
30°-40°	1189.7	16.3
40°-50°	1250.1	17.2
50°-60°	1176.2	16.2
60°-70°	980.7	13.5
70°-80°	649.8	8.9
80°-90°	173.2	2.4
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°	1862.6	25.6
0°-40°	3052.3	41.9
0°-60°	5478.5	75.2
0°-90°	7282.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7282.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2398	2398	2398	2398	2398	
5°	2380	2384	2398	2398	2393	226
15°	2283	2292	2306	2315	2320	644
25°	2100	2113	2136	2164	2173	967
35°	1837	1856	1902	1943	1962	1149
45°	1516	1539	1613	1695	1736	1168
55°	1135	1185	1314	1447	1502	1015
65°	744	808	1002	1167	1240	724
75°	326	455	666	804	845	354
85°	78	119	161	174	174	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2397.8	2397.8	2397.8	2397.8	2397.8
2.5°	2388.9	2393.3	2402.7	2402.7	2397.8
5°	2379.5	2384.0	2397.8	2397.8	2393.3
7.5°	2365.7	2370.6	2379.5	2388.9	2384.0
10°	2347.5	2351.9	2361.3	2370.6	2370.6
12.5°	2315.4	2319.9	2338.1	2343.0	2343.0
15°	2282.9	2292.3	2306.1	2315.4	2319.9
17.5°	2242.0	2250.9	2269.1	2287.8	2287.8
20°	2200.6	2209.5	2232.6	2250.9	2255.3
22.5°	2149.9	2163.7	2186.8	2209.5	2218.8
25°	2099.6	2113.4	2136.1	2163.7	2173.0
27.5°	2039.5	2053.3	2085.8	2117.8	2122.3
30°	1979.8	1993.6	2035.0	2062.6	2076.4
32.5°	1906.4	1924.6	1966.0	2007.4	2021.2
35°	1837.4	1856.1	1901.9	1943.3	1961.6
37.5°	1763.9	1782.2	1832.9	1883.7	1906.4
40°	1681.2	1704.3	1763.9	1819.1	1851.2
42.5°	1603.3	1626.4	1686.1	1759.5	1791.5
45°	1516.0	1538.7	1612.6	1695.0	1736.4
47.5°	1423.9	1451.5	1538.7	1640.2	1681.2
50°	1332.2	1364.2	1460.8	1575.7	1621.5
52.5°	1235.6	1277.0	1387.4	1511.6	1566.3
55°	1134.6	1185.3	1313.9	1447.0	1502.2
57.5°	1038.0	1084.3	1235.6	1378.0	1437.7
60°	932.5	992.1	1162.2	1309.1	1373.6
62.5°	831.5	896.0	1084.3	1240.5	1309.1
65°	744.2	808.3	1001.5	1166.6	1240.5
67.5°	629.4	716.6	932.5	1088.7	1162.2
70°	514.5	633.8	845.3	1005.9	1074.9
72.5°	427.3	542.1	758.0	918.7	983.2
75°	326.3	454.9	666.3	803.9	845.3
77.5°	243.5	376.6	569.7	638.7	643.2
80°	179.4	289.3	431.8	454.9	473.1
82.5°	124.2	202.1	280.4	307.6	316.9
85°	77.9	119.3	160.7	174.5	174.5
87.5°	41.4	45.8	55.2	55.2	55.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)