

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: P475161

Luminaire Tested: **22CZ2-85VHE-HRP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475161
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-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: 6939.6 lumens
Efficiency: N/A
Efficacy: 110.0 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

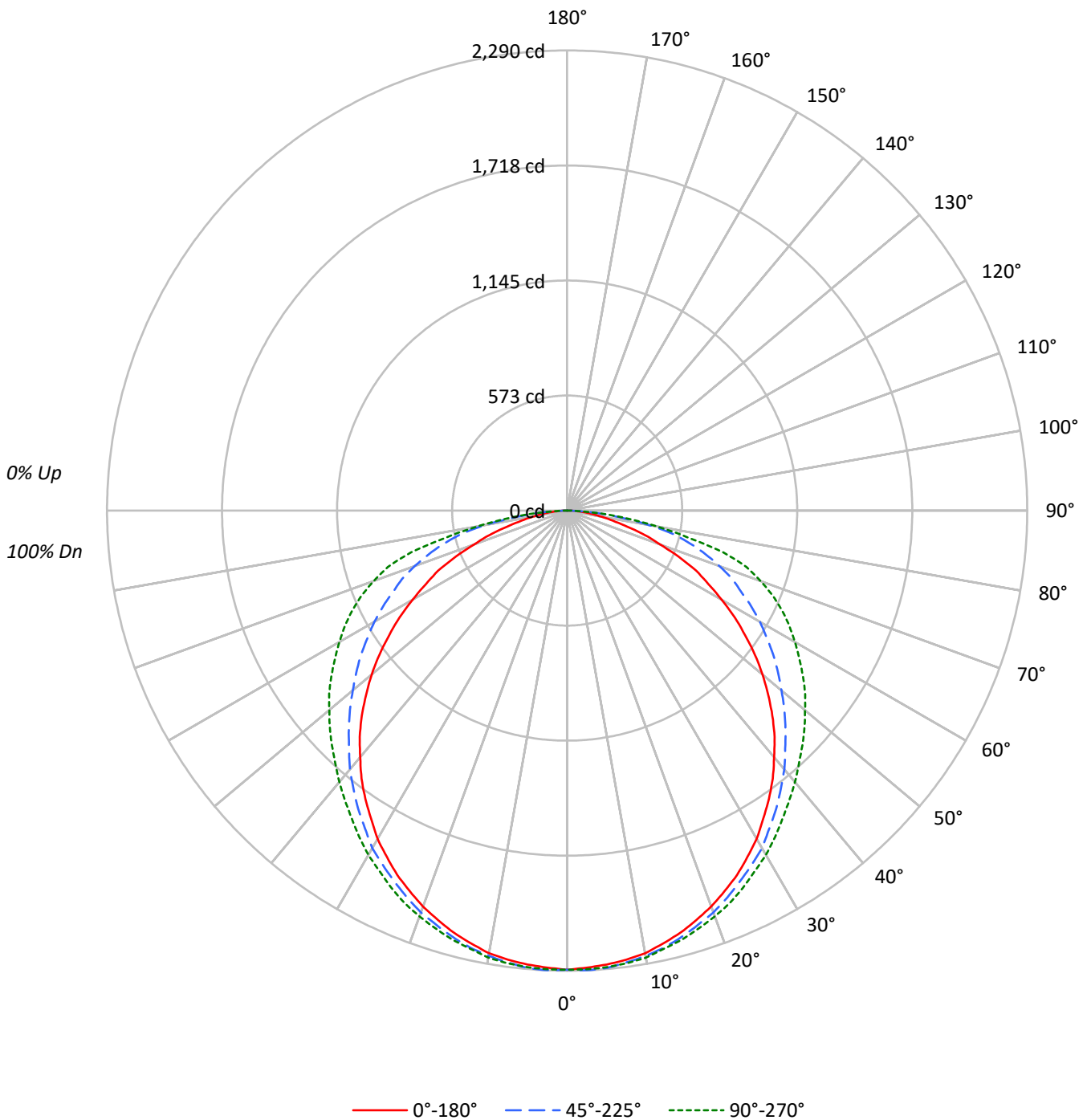
Input Watts (W): 63.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	6149	6149	6149
5°	6125	6172	6161
10°	6113	6149	6173
15°	6061	6122	6159
20°	6005	6093	6155
25°	5941	6044	6149
30°	5862	6026	6148
35°	5752	5954	6141
40°	5628	5905	6197
45°	5498	5848	6297
50°	5315	5828	6469
55°	5073	5874	6716
60°	4782	5961	7045
65°	4516	6077	7527
70°	3858	6338	8059
75°	3232	6602	8375
80°	2648	6375	6987
85°	2291	4727	5135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.6	3.1
10°-20°	619.5	8.9
20°-30°	938.9	13.5
30°-40°	1133.7	16.3
40°-50°	1191.2	17.2
50°-60°	1120.8	16.2
60°-70°	934.5	13.5
70°-80°	619.3	8.9
80°-90°	165.0	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°	1775.0	25.6
0°-40°	2908.7	41.9
0°-60°	5220.7	75.2
0°-90°	6939.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6939.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2285	2285	2285	2285	2285	
5°	2268	2272	2285	2285	2281	216
15°	2176	2184	2198	2206	2211	613
25°	2001	2014	2036	2062	2071	921
35°	1751	1769	1812	1852	1869	1095
45°	1445	1466	1537	1615	1655	1113
55°	1081	1130	1252	1379	1432	967
65°	709	770	954	1112	1182	690
75°	311	434	635	766	806	337
85°	74	114	153	166	166	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2285.0	2285.0	2285.0	2285.0	2285.0
2.5°	2276.5	2280.7	2289.6	2289.6	2285.0
5°	2267.6	2271.8	2285.0	2285.0	2280.7
7.5°	2254.4	2259.1	2267.6	2276.5	2271.8
10°	2237.0	2241.3	2250.2	2259.1	2259.1
12.5°	2206.5	2210.7	2228.1	2232.8	2232.8
15°	2175.5	2184.4	2197.6	2206.5	2210.7
17.5°	2136.5	2145.0	2162.4	2180.2	2180.2
20°	2097.1	2105.5	2127.6	2145.0	2149.2
22.5°	2048.7	2061.8	2083.9	2105.5	2114.4
25°	2000.8	2013.9	2035.5	2061.8	2070.8
27.5°	1943.5	1956.7	1987.6	2018.2	2022.4
30°	1886.7	1899.8	1939.3	1965.6	1978.7
32.5°	1816.7	1834.1	1873.5	1913.0	1926.1
35°	1750.9	1768.8	1812.4	1851.9	1869.3
37.5°	1680.9	1698.3	1746.7	1795.0	1816.7
40°	1602.1	1624.1	1680.9	1733.5	1764.1
42.5°	1527.8	1549.9	1606.7	1676.7	1707.2
45°	1444.7	1466.3	1536.7	1615.2	1654.7
47.5°	1356.9	1383.2	1466.3	1563.0	1602.1
50°	1269.5	1300.1	1392.1	1501.5	1545.2
52.5°	1177.5	1216.9	1322.1	1440.4	1492.6
55°	1081.2	1129.5	1252.1	1378.9	1431.5
57.5°	989.1	1033.3	1177.5	1313.2	1370.0
60°	888.6	945.5	1107.5	1247.5	1309.0
62.5°	792.3	853.8	1033.3	1182.1	1247.5
65°	709.2	770.3	954.4	1111.7	1182.1
67.5°	599.8	682.9	888.6	1037.5	1107.5
70°	490.3	604.0	805.5	958.6	1024.3
72.5°	407.2	516.6	722.3	875.5	937.0
75°	310.9	433.5	635.0	766.0	805.5
77.5°	232.0	358.8	542.9	608.7	612.9
80°	170.9	275.7	411.4	433.5	450.9
82.5°	118.3	192.6	267.2	293.1	302.0
85°	74.2	113.7	153.1	166.3	166.3
87.5°	39.4	43.7	52.6	52.6	52.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)