

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: P475189

Luminaire Tested: **22CZ2-80VHE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475189
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-HRP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6617.4 lumens
Efficiency: N/A
Efficacy: 112.7 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

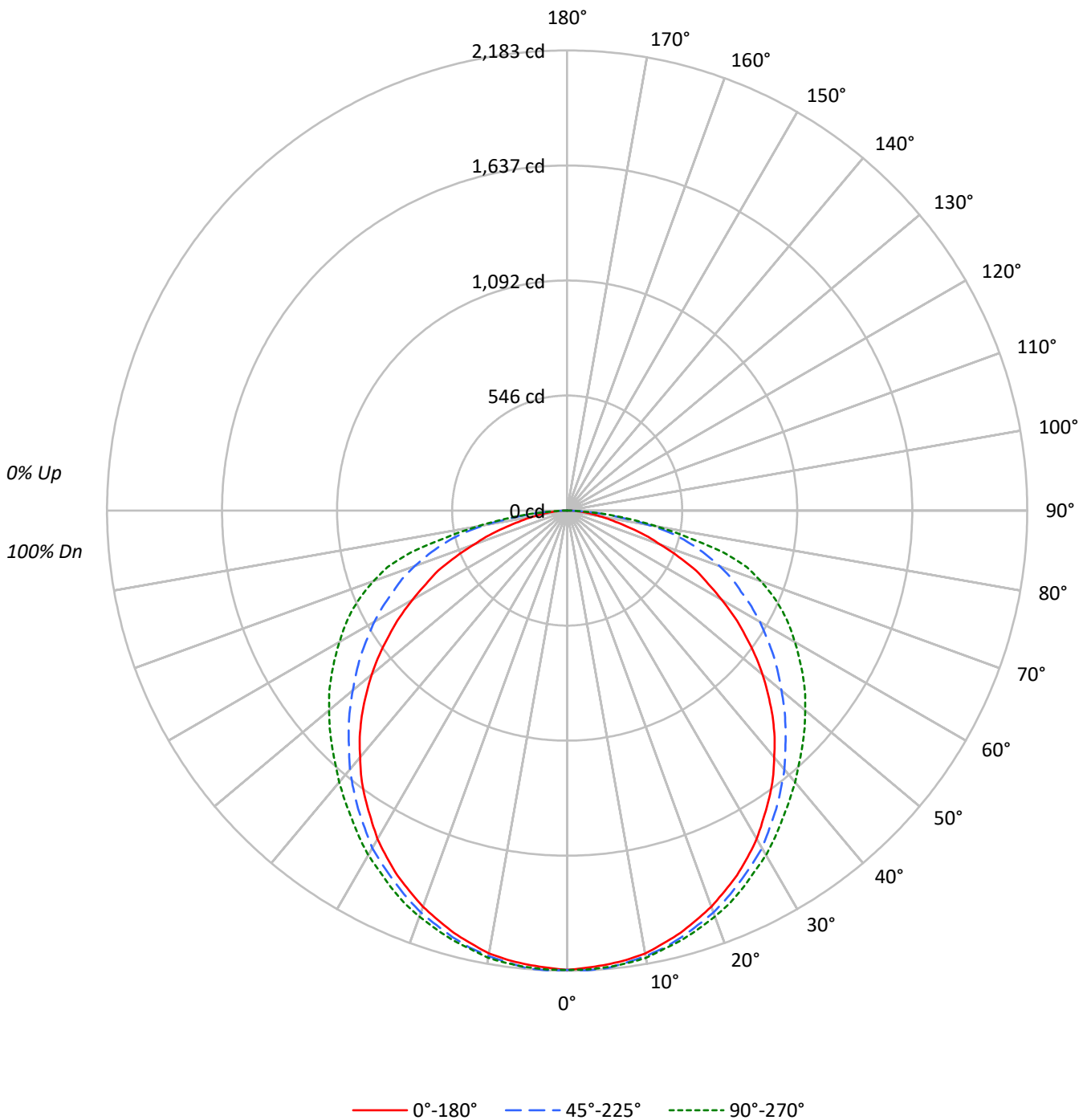
Input Watts (W): 58.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5863	5863	5863
5°	5841	5886	5875
10°	5829	5863	5886
15°	5779	5838	5873
20°	5727	5810	5869
25°	5665	5763	5863
30°	5590	5746	5863
35°	5485	5678	5856
40°	5367	5631	5909
45°	5243	5577	6005
50°	5068	5557	6169
55°	4837	5602	6404
60°	4561	5684	6718
65°	4306	5795	7178
70°	3679	6043	7685
75°	3083	6295	7986
80°	2526	6079	6664
85°	2186	4508	4897



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.5	3.1
10°-20°	590.8	8.9
20°-30°	895.3	13.5
30°-40°	1081.1	16.3
40°-50°	1135.9	17.2
50°-60°	1068.8	16.2
60°-70°	891.2	13.5
70°-80°	590.5	8.9
80°-90°	157.4	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°	1692.6	25.6
0°-40°	2773.6	41.9
0°-60°	4978.4	75.2
0°-90°	6617.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6617.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2179	2179	2179	2179	2179	
5°	2162	2166	2179	2179	2175	206
15°	2074	2083	2096	2104	2108	585
25°	1908	1920	1941	1966	1975	878
35°	1670	1687	1728	1766	1782	1044
45°	1378	1398	1465	1540	1578	1061
55°	1031	1077	1194	1315	1365	922
65°	676	734	910	1060	1127	658
75°	296	413	606	730	768	322
85°	71	108	146	159	159	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2178.9	2178.9	2178.9	2178.9	2178.9
2.5°	2170.8	2174.8	2183.3	2183.3	2178.9
5°	2162.3	2166.3	2178.9	2178.9	2174.8
7.5°	2149.8	2154.2	2162.3	2170.8	2166.3
10°	2133.2	2137.2	2145.7	2154.2	2154.2
12.5°	2104.1	2108.1	2124.7	2129.1	2129.1
15°	2074.5	2083.0	2095.6	2104.1	2108.1
17.5°	2037.3	2045.4	2062.0	2079.0	2079.0
20°	1999.7	2007.8	2028.8	2045.4	2049.5
22.5°	1953.6	1966.1	1987.2	2007.8	2016.3
25°	1907.9	1920.4	1941.1	1966.1	1974.6
27.5°	1853.3	1865.8	1895.4	1924.5	1928.5
30°	1799.1	1811.6	1849.2	1874.3	1886.9
32.5°	1732.4	1748.9	1786.6	1824.2	1836.7
35°	1669.7	1686.6	1728.3	1765.9	1782.5
37.5°	1602.9	1619.5	1665.6	1711.7	1732.4
40°	1527.7	1548.7	1602.9	1653.1	1682.2
42.5°	1456.9	1477.9	1532.1	1598.9	1628.0
45°	1377.6	1398.3	1465.4	1540.2	1577.8
47.5°	1293.9	1319.0	1398.3	1490.5	1527.7
50°	1210.6	1239.7	1327.5	1431.8	1473.5
52.5°	1122.8	1160.4	1260.7	1373.6	1423.3
55°	1031.0	1077.1	1194.0	1314.9	1365.1
57.5°	943.2	985.3	1122.8	1252.2	1306.4
60°	847.4	901.6	1056.1	1189.6	1248.2
62.5°	755.6	814.2	985.3	1127.3	1189.6
65°	676.3	734.5	910.1	1060.1	1127.3
67.5°	571.9	651.2	847.4	989.3	1056.1
70°	467.6	576.0	768.1	914.1	976.8
72.5°	388.3	492.6	688.8	834.8	893.5
75°	296.5	413.4	605.5	730.5	768.1
77.5°	221.2	342.2	517.7	580.4	584.5
80°	163.0	262.9	392.3	413.4	430.0
82.5°	112.8	183.6	254.8	279.5	288.0
85°	70.8	108.4	146.0	158.6	158.6
87.5°	37.6	41.7	50.2	50.2	50.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)