

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: P474489

Luminaire Tested: **24CZ2-75VHE-HRP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474489
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-HRP-UNV-L840-CD1-U
Description: 2'X4' 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: 6182.2 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

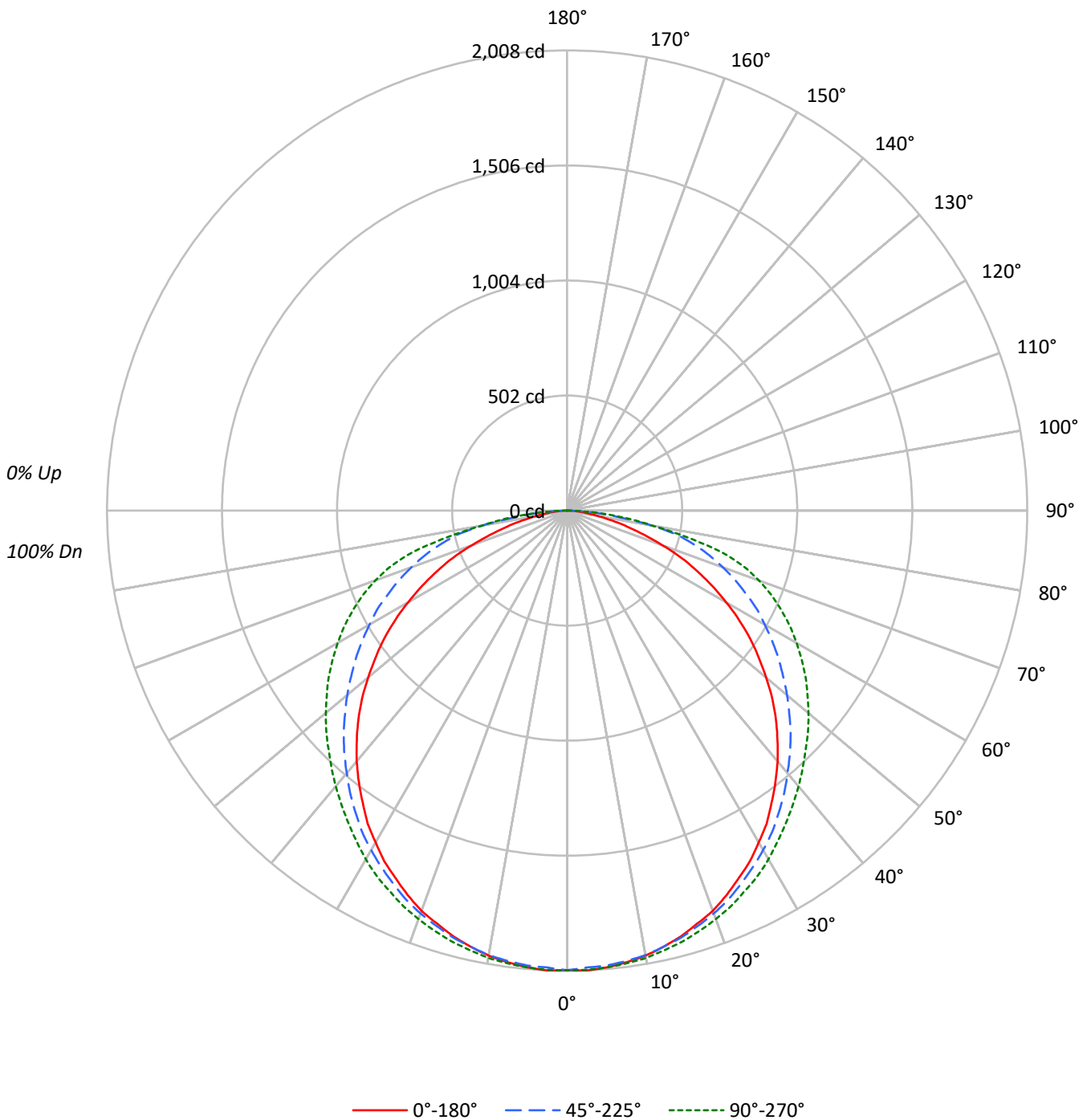
Input Watts (W): 51.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2699	2699	2699
5°	2702	2692	2702
10°	2694	2691	2708
15°	2679	2686	2711
20°	2661	2679	2716
25°	2628	2667	2720
30°	2598	2658	2730
35°	2555	2644	2734
40°	2509	2628	2759
45°	2453	2625	2802
50°	2373	2622	2877
55°	2289	2641	2981
60°	2159	2681	3113
65°	1994	2744	3288
70°	1741	2840	3503
75°	1412	2987	3619
80°	1044	2929	2929
85°	800	2157	2436



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.0	3.1
10°-20°	545.7	8.8
20°-30°	830.7	13.4
30°-40°	1008.6	16.3
40°-50°	1065.6	17.2
50°-60°	1005.5	16.3
60°-70°	836.1	13.5
70°-80°	550.0	8.9
80°-90°	149.9	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°	1566.4	25.3
0°-40°	2575.0	41.7
0°-60°	4646.2	75.2
0°-90°	6182.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6182.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2006	2006	2006	2006	2006	
5°	2001	2001	1993	2001	2001	190
15°	1923	1926	1928	1946	1946	542
25°	1770	1781	1796	1827	1832	817
35°	1556	1574	1610	1651	1664	974
45°	1289	1315	1379	1447	1473	993
55°	976	1017	1126	1232	1271	869
65°	626	699	862	989	1033	619
75°	272	396	575	681	696	293
85°	52	114	140	155	158	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2005.8	2005.8	2005.8	2005.8	2005.8
2.5°	2008.5	2005.8	1995.5	2005.8	2005.8
5°	2000.8	2000.8	1992.8	2000.8	2000.8
7.5°	1987.8	1987.8	1982.4	1992.8	1992.8
10°	1972.1	1972.1	1969.7	1982.4	1982.4
12.5°	1949.0	1951.4	1949.0	1964.4	1964.4
15°	1922.9	1925.6	1928.3	1946.3	1946.3
17.5°	1889.5	1894.5	1899.8	1920.3	1922.9
20°	1858.4	1860.8	1871.1	1894.5	1897.2
22.5°	1816.9	1824.7	1837.7	1860.8	1868.7
25°	1770.2	1780.6	1796.2	1827.3	1832.4
27.5°	1726.4	1734.1	1754.8	1788.5	1798.9
30°	1671.9	1684.9	1710.7	1744.4	1757.4
32.5°	1620.1	1633.1	1664.2	1700.3	1710.7
35°	1555.6	1573.6	1609.8	1651.2	1664.2
37.5°	1493.4	1511.5	1555.6	1602.0	1617.7
40°	1428.6	1449.3	1496.1	1550.3	1571.0
42.5°	1358.7	1387.2	1438.9	1498.5	1521.8
45°	1288.9	1314.9	1379.4	1446.7	1472.7
47.5°	1214.0	1245.0	1314.9	1395.1	1426.2
50°	1133.7	1172.5	1252.7	1340.7	1374.4
52.5°	1053.5	1097.3	1187.9	1286.2	1322.6
55°	975.7	1017.1	1125.8	1232.0	1270.8
57.5°	890.4	942.2	1061.2	1174.9	1214.0
60°	802.2	859.3	996.4	1115.4	1156.8
62.5°	714.3	779.1	934.2	1053.5	1097.3
65°	626.4	698.9	862.0	988.7	1032.8
67.5°	540.8	621.1	794.5	921.5	965.3
70°	442.5	543.5	722.0	846.3	890.4
72.5°	352.0	468.6	652.1	768.8	807.5
75°	271.7	396.1	574.6	680.6	696.2
77.5°	199.2	323.5	494.3	530.5	533.1
80°	134.7	258.7	378.0	372.7	378.0
82.5°	87.9	194.2	238.0	266.7	269.1
85°	51.8	114.0	139.7	155.4	157.8
87.5°	25.8	38.8	49.1	51.8	56.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)