

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: P473874

Luminaire Tested: **24CZ2-55HE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473874
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55HE-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5830.6 lumens
Efficiency: N/A
Efficacy: 134.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

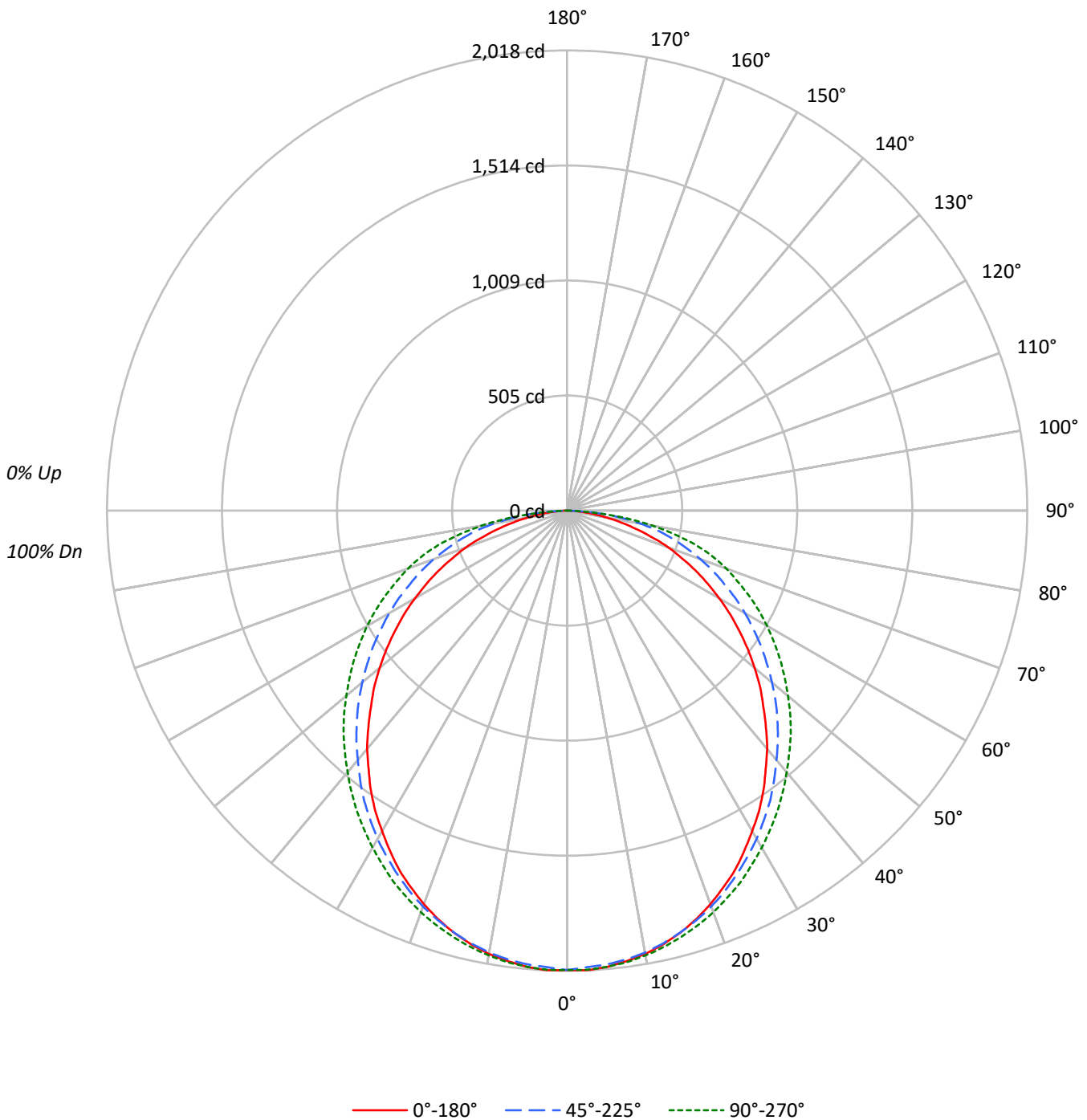
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P473874

CATALOG NUMBER: 24CZ2-55HE-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P473874

CATALOG NUMBER: 24CZ2-55HE-UNV-L840-CD1-U

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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2711	2711	2711
5°	2712	2698	2712
10°	2697	2688	2706
15°	2670	2669	2695
20°	2630	2646	2684
25°	2584	2614	2671
30°	2522	2583	2652
35°	2465	2550	2641
40°	2397	2508	2631
45°	2316	2482	2638
50°	2246	2455	2646
55°	2163	2437	2676
60°	2073	2426	2725
65°	1976	2417	2795
70°	1860	2442	2924
75°	1635	2493	3041
80°	1364	2510	2934
85°	974	2152	2181



TEST NUMBER: P473874

CATALOG NUMBER: 24CZ2-55HE-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.5	3.3
10°-20°	542.5	9.3
20°-30°	813.9	14.0
30°-40°	971.7	16.7
40°-50°	1006.5	17.3
50°-60°	926.6	15.9
60°-70°	747.4	12.8
70°-80°	488.4	8.4
80°-90°	143.2	2.5
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°	1546.9	26.5
0°-40°	2518.6	43.2
0°-60°	4451.6	76.3
0°-90°	5830.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5830.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2015	2015	2015	2015	2015	
5°	2008	2006	1998	2009	2008	191
15°	1917	1917	1916	1935	1935	540
25°	1741	1744	1760	1792	1799	800
35°	1500	1514	1552	1595	1608	937
45°	1217	1247	1305	1363	1387	941
55°	922	962	1039	1115	1141	825
65°	621	663	759	846	878	614
75°	315	374	480	562	585	336
85°	63	109	139	148	141	78
90°	0	0	0	0	0	



TEST NUMBER: P473874

CATALOG NUMBER: 24CZ2-55HE-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2014.8	2014.8	2014.8	2014.8	2014.8
2.5°	2017.7	2014.8	2004.5	2016.7	2015.8
5°	2008.3	2006.4	1997.9	2009.2	2008.3
7.5°	1993.2	1992.2	1985.6	1997.9	1997.9
10°	1974.3	1972.5	1967.7	1981.9	1980.9
12.5°	1948.0	1947.0	1944.2	1961.2	1960.2
15°	1916.9	1916.9	1915.9	1934.8	1934.8
17.5°	1879.2	1880.1	1883.9	1905.6	1906.5
20°	1836.8	1840.6	1848.1	1872.6	1874.5
22.5°	1788.8	1796.3	1806.7	1834.0	1836.8
25°	1740.7	1744.5	1760.5	1792.5	1799.1
27.5°	1682.3	1691.8	1712.5	1745.4	1752.0
30°	1623.0	1636.2	1662.6	1696.5	1706.8
32.5°	1564.6	1575.9	1607.0	1645.6	1657.8
35°	1500.5	1513.7	1552.3	1594.7	1607.9
37.5°	1429.9	1450.6	1491.1	1540.1	1554.2
40°	1364.9	1383.7	1428.0	1482.6	1497.7
42.5°	1290.5	1314.0	1367.7	1423.3	1442.1
45°	1217.0	1247.2	1304.6	1363.0	1386.6
47.5°	1148.2	1172.7	1240.6	1306.5	1327.2
50°	1072.9	1101.1	1172.7	1242.4	1264.1
52.5°	998.5	1032.4	1104.9	1178.4	1201.9
55°	922.2	961.7	1039.0	1115.3	1140.7
57.5°	848.7	888.3	968.3	1049.3	1075.7
60°	770.5	812.9	901.5	979.6	1012.6
62.5°	695.2	737.6	830.8	915.6	946.7
65°	620.8	663.1	759.2	845.9	877.9
67.5°	543.5	589.7	692.3	776.2	807.3
70°	472.9	517.1	620.8	710.2	743.2
72.5°	391.9	444.6	550.1	638.6	669.7
75°	314.6	374.0	479.5	562.3	585.0
77.5°	243.0	302.4	407.9	470.0	484.2
80°	176.1	236.4	324.0	367.4	378.7
82.5°	114.0	176.1	234.5	263.7	267.5
85°	63.1	109.3	139.4	147.9	141.3
87.5°	22.6	41.4	40.5	33.0	26.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)