

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: P473875

Luminaire Tested: **24CZ2-60HE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473875
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60HE-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: 6299.4 lumens
Efficiency: N/A
Efficacy: 142.8 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

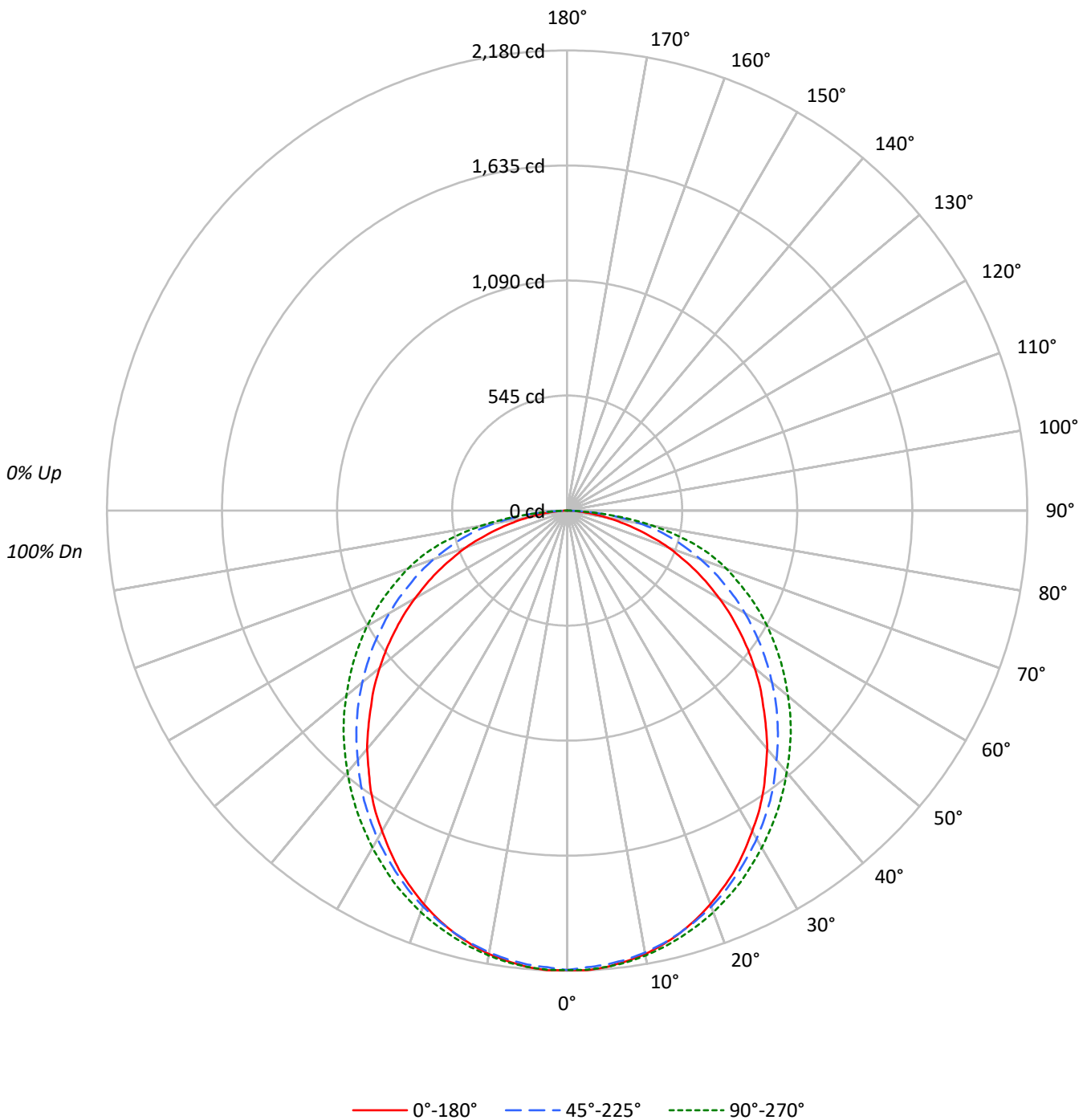
Input Watts (W): 44.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2929	2929	2929
5°	2930	2915	2930
10°	2914	2905	2924
15°	2885	2883	2912
20°	2841	2859	2900
25°	2792	2824	2886
30°	2724	2791	2865
35°	2663	2755	2853
40°	2590	2710	2842
45°	2502	2682	2850
50°	2426	2652	2859
55°	2337	2633	2891
60°	2240	2621	2944
65°	2135	2612	3020
70°	2010	2638	3159
75°	1767	2693	3285
80°	1475	2713	3170
85°	1053	2325	2357



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.8	3.3
10°-20°	586.1	9.3
20°-30°	879.3	14.0
30°-40°	1049.8	16.7
40°-50°	1087.4	17.3
50°-60°	1001.1	15.9
60°-70°	807.5	12.8
70°-80°	527.6	8.4
80°-90°	154.7	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°	1671.2	26.5
0°-40°	2721.0	43.2
0°-60°	4809.5	76.3
0°-90°	6299.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6299.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2177	2177	2177	2177	2177	
5°	2170	2168	2158	2171	2170	206
15°	2071	2071	2070	2090	2090	584
25°	1881	1885	1902	1937	1944	865
35°	1621	1635	1677	1723	1737	1013
45°	1315	1347	1410	1473	1498	1016
55°	996	1039	1122	1205	1232	892
65°	671	716	820	914	948	663
75°	340	404	518	608	632	363
85°	68	118	151	160	153	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2176.8	2176.8	2176.8	2176.8	2176.8
2.5°	2179.9	2176.8	2165.6	2178.9	2177.8
5°	2169.7	2167.7	2158.5	2170.7	2169.7
7.5°	2153.4	2152.4	2145.3	2158.5	2158.5
10°	2133.1	2131.0	2125.9	2141.2	2140.2
12.5°	2104.6	2103.6	2100.5	2118.8	2117.8
15°	2071.0	2071.0	2070.0	2090.3	2090.3
17.5°	2030.3	2031.3	2035.4	2058.8	2059.8
20°	1984.5	1988.6	1996.7	2023.2	2025.2
22.5°	1932.6	1940.7	1951.9	1981.4	1984.5
25°	1880.7	1884.7	1902.0	1936.7	1943.8
27.5°	1817.6	1827.8	1850.1	1885.8	1892.9
30°	1753.5	1767.7	1796.2	1832.8	1844.0
32.5°	1690.4	1702.6	1736.2	1777.9	1791.1
35°	1621.2	1635.4	1677.1	1722.9	1737.2
37.5°	1544.8	1567.2	1611.0	1663.9	1679.2
40°	1474.6	1495.0	1542.8	1601.8	1618.1
42.5°	1394.2	1419.7	1477.7	1537.7	1558.1
45°	1314.8	1347.4	1409.5	1472.6	1498.0
47.5°	1240.6	1267.0	1340.3	1411.5	1433.9
50°	1159.1	1189.7	1267.0	1342.3	1365.7
52.5°	1078.7	1115.4	1193.7	1273.1	1298.6
55°	996.3	1039.1	1122.5	1204.9	1232.4
57.5°	916.9	959.7	1046.2	1133.7	1162.2
60°	832.5	878.3	973.9	1058.4	1094.0
62.5°	751.1	796.8	897.6	989.2	1022.8
65°	670.7	716.4	820.3	913.9	948.5
67.5°	587.2	637.1	748.0	838.6	872.2
70°	510.9	558.7	670.7	767.3	803.0
72.5°	423.4	480.3	594.3	690.0	723.6
75°	339.9	404.0	518.0	607.6	632.0
77.5°	262.6	326.7	440.7	507.8	523.1
80°	190.3	255.4	350.1	396.9	409.1
82.5°	123.1	190.3	253.4	285.0	289.0
85°	68.2	118.1	150.6	159.8	152.7
87.5°	24.4	44.8	43.8	35.6	28.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)