

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: P473837

Luminaire Tested: **24CZ2-60VHE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473837
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60VHE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

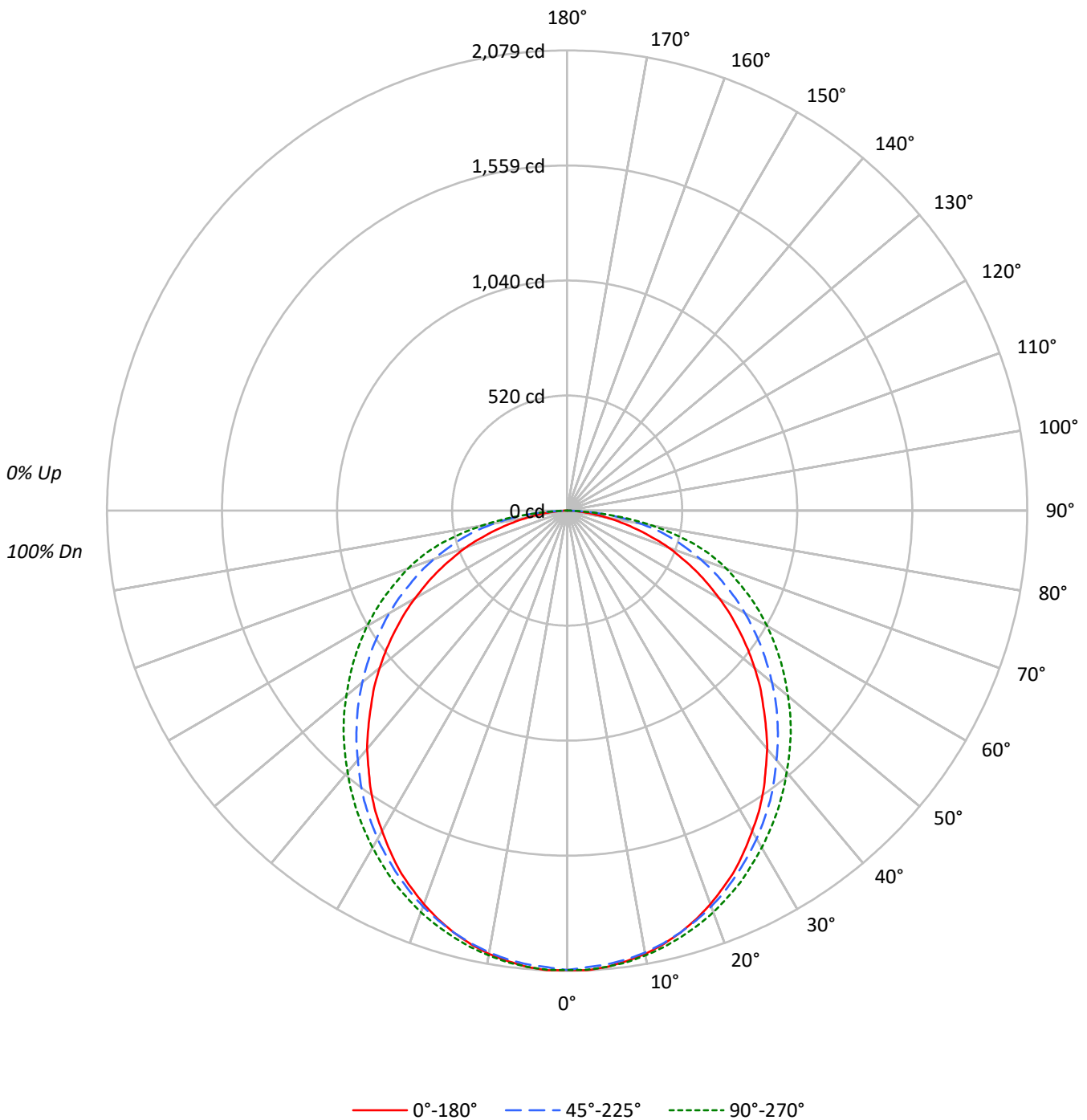
Lumens per Lamp: N/A
Luminaire Lumens: 6006.9 lumens
Efficiency: N/A
Efficacy: 147.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.7
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	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°	2793	2793	2793
5°	2794	2780	2794
10°	2779	2770	2788
15°	2751	2750	2777
20°	2710	2726	2765
25°	2662	2693	2752
30°	2598	2661	2732
35°	2539	2627	2721
40°	2470	2584	2710
45°	2386	2558	2718
50°	2314	2529	2726
55°	2229	2511	2757
60°	2136	2499	2807
65°	2036	2490	2879
70°	1917	2516	3012
75°	1685	2568	3133
80°	1406	2586	3023
85°	1003	2217	2248



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.2	3.3
10°-20°	558.9	9.3
20°-30°	838.5	14.0
30°-40°	1001.1	16.7
40°-50°	1036.9	17.3
50°-60°	954.6	15.9
60°-70°	770.0	12.8
70°-80°	503.1	8.4
80°-90°	147.5	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°	1593.6	26.5
0°-40°	2594.7	43.2
0°-60°	4586.2	76.3
0°-90°	6006.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6006.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2076	2076	2076	2076	2076	
5°	2069	2067	2058	2070	2069	196
15°	1975	1975	1974	1993	1993	556
25°	1793	1797	1814	1847	1854	825
35°	1546	1560	1599	1643	1656	966
45°	1254	1285	1344	1404	1428	969
55°	950	991	1070	1149	1175	850
65°	640	683	782	872	904	632
75°	324	385	494	579	603	346
85°	65	113	144	152	146	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2075.8	2075.8	2075.8	2075.8	2075.8
2.5°	2078.7	2075.8	2065.1	2077.7	2076.7
5°	2069.0	2067.0	2058.3	2069.9	2069.0
7.5°	2053.4	2052.5	2045.7	2058.3	2058.3
10°	2034.0	2032.1	2027.2	2041.8	2040.8
12.5°	2006.9	2005.9	2003.0	2020.4	2019.5
15°	1974.8	1974.8	1973.9	1993.3	1993.3
17.5°	1936.0	1937.0	1940.9	1963.2	1964.2
20°	1892.4	1896.2	1904.0	1929.2	1931.2
22.5°	1842.9	1850.6	1861.3	1889.4	1892.4
25°	1793.4	1797.2	1813.7	1846.7	1853.5
27.5°	1733.2	1742.9	1764.3	1798.2	1805.0
30°	1672.1	1685.6	1712.8	1747.8	1758.4
32.5°	1611.9	1623.5	1655.6	1695.4	1708.0
35°	1545.9	1559.5	1599.3	1642.9	1656.5
37.5°	1473.1	1494.5	1536.2	1586.7	1601.2
40°	1406.2	1425.6	1471.2	1527.5	1543.0
42.5°	1329.5	1353.8	1409.1	1466.3	1485.7
45°	1253.8	1284.9	1344.1	1404.2	1428.5
47.5°	1183.0	1208.2	1278.1	1346.0	1367.3
50°	1105.3	1134.4	1208.2	1280.0	1302.3
52.5°	1028.7	1063.6	1138.3	1214.0	1238.3
55°	950.1	990.8	1070.4	1149.0	1175.2
57.5°	874.4	915.1	997.6	1081.1	1108.2
60°	793.8	837.5	928.7	1009.3	1043.2
62.5°	716.2	759.9	855.9	943.3	975.3
65°	639.5	683.2	782.2	871.5	904.4
67.5°	559.9	607.5	713.3	799.6	831.7
70°	487.2	532.8	639.5	731.7	765.7
72.5°	403.7	458.0	566.7	658.0	690.0
75°	324.1	385.3	494.0	579.4	602.6
77.5°	250.4	311.5	420.2	484.2	498.8
80°	181.5	243.6	333.8	378.5	390.1
82.5°	117.4	181.5	241.6	271.7	275.6
85°	65.0	112.6	143.6	152.4	145.6
87.5°	23.3	42.7	41.7	34.0	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)