

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: P473825

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473825
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60HE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6181.9 lumens
Efficiency: N/A
Efficacy: 140.2 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

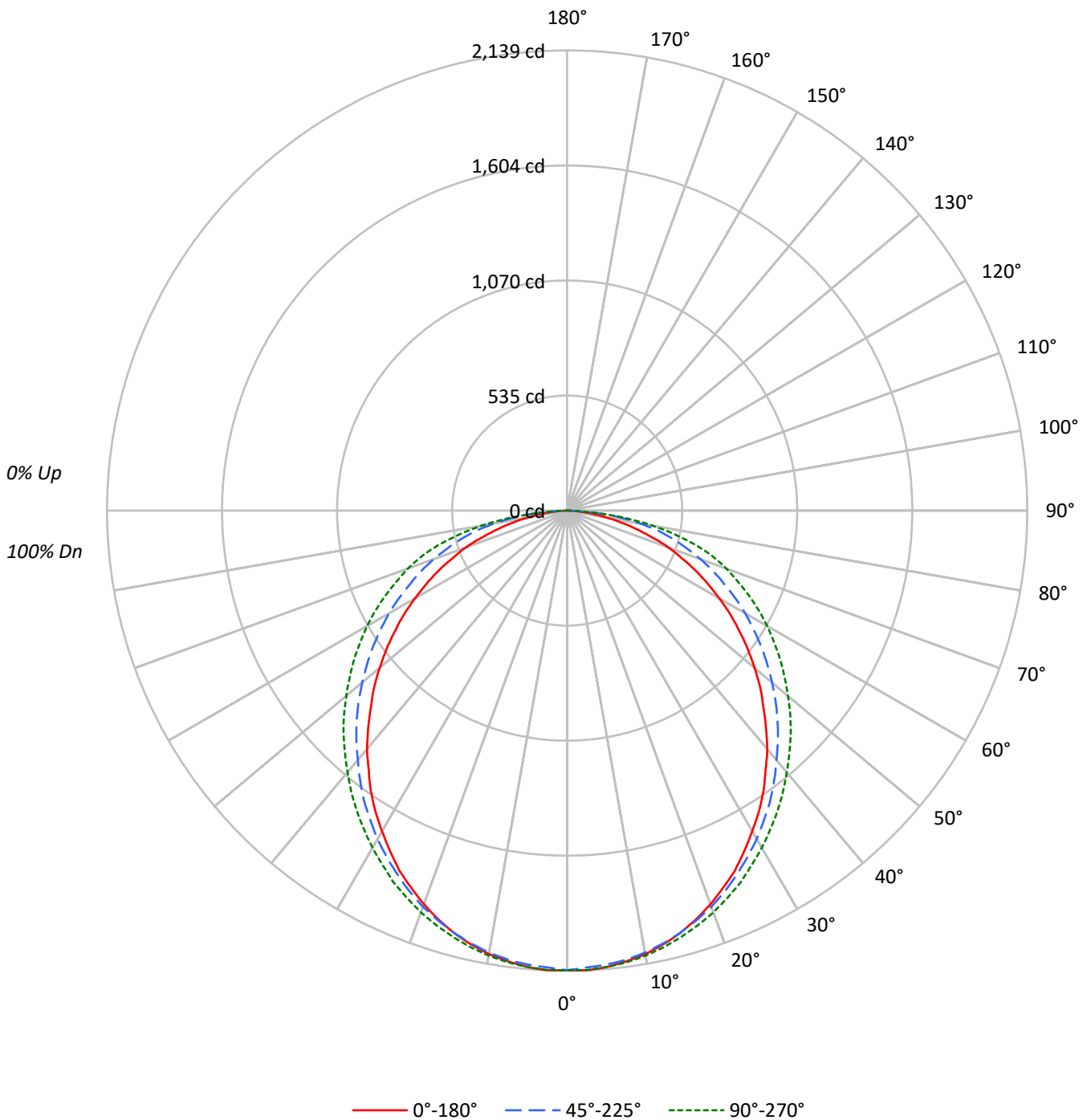
Input Watts (W): 44.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83	83	
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68	68	
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57	57	
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48	48	
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42	42	
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37	37	
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32	32	
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29	29	
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26	26	
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23	23	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2874	2874	2874
5°	2876	2861	2876
10°	2860	2850	2870
15°	2831	2830	2857
20°	2789	2806	2846
25°	2740	2771	2832
30°	2673	2739	2812
35°	2613	2703	2800
40°	2542	2659	2789
45°	2455	2632	2797
50°	2381	2603	2806
55°	2293	2584	2837
60°	2198	2572	2889
65°	2095	2563	2963
70°	1972	2589	3100
75°	1734	2642	3224
80°	1447	2662	3111
85°	1033	2282	2313



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.9	3.3
10°-20°	575.2	9.3
20°-30°	862.9	14.0
30°-40°	1030.2	16.7
40°-50°	1067.1	17.3
50°-60°	982.4	15.9
60°-70°	792.5	12.8
70°-80°	517.8	8.4
80°-90°	151.8	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°	1640.1	26.5
0°-40°	2670.3	43.2
0°-60°	4719.9	76.3
0°-90°	6181.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6181.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2136	2136	2136	2136	2136	
5°	2129	2127	2118	2130	2129	202
15°	2032	2032	2031	2051	2051	573
25°	1846	1850	1867	1900	1908	849
35°	1591	1605	1646	1691	1705	994
45°	1290	1322	1383	1445	1470	997
55°	978	1020	1102	1182	1209	875
65°	658	703	805	897	931	651
75°	334	396	508	596	620	356
85°	67	116	148	157	150	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2136.2	2136.2	2136.2	2136.2	2136.2
2.5°	2139.2	2136.2	2125.2	2138.2	2137.2
5°	2129.2	2127.2	2118.3	2130.2	2129.2
7.5°	2113.3	2112.3	2105.3	2118.3	2118.3
10°	2093.3	2091.3	2086.3	2101.3	2100.3
12.5°	2065.3	2064.3	2061.3	2079.3	2078.3
15°	2032.4	2032.4	2031.4	2051.3	2051.3
17.5°	1992.4	1993.4	1997.4	2020.4	2021.4
20°	1947.5	1951.5	1959.5	1985.4	1987.4
22.5°	1896.5	1904.5	1915.5	1944.5	1947.5
25°	1845.6	1849.6	1866.6	1900.5	1907.5
27.5°	1783.7	1793.7	1815.7	1850.6	1857.6
30°	1720.8	1734.8	1762.7	1798.7	1809.7
32.5°	1658.9	1670.8	1703.8	1744.7	1757.7
35°	1590.9	1604.9	1645.9	1690.8	1704.8
37.5°	1516.0	1538.0	1581.0	1632.9	1647.9
40°	1447.1	1467.1	1514.0	1572.0	1587.9
42.5°	1368.2	1393.2	1450.1	1509.0	1529.0
45°	1290.3	1322.3	1383.2	1445.1	1470.1
47.5°	1217.4	1243.4	1315.3	1385.2	1407.2
50°	1137.5	1167.5	1243.4	1317.3	1340.3
52.5°	1058.6	1094.6	1171.5	1249.4	1274.4
55°	977.7	1019.7	1101.6	1182.5	1209.4
57.5°	899.8	941.8	1026.7	1112.6	1140.5
60°	816.9	861.9	955.8	1038.7	1073.6
62.5°	737.0	782.0	880.9	970.7	1003.7
65°	658.1	703.1	805.0	896.8	930.8
67.5°	576.3	625.2	734.1	822.9	855.9
70°	501.4	548.3	658.1	753.0	788.0
72.5°	415.5	471.4	583.2	677.1	710.1
75°	333.6	396.5	508.3	596.2	620.2
77.5°	257.7	320.6	432.4	498.4	513.3
80°	186.8	250.7	343.6	389.5	401.5
82.5°	120.8	186.8	248.7	279.6	283.6
85°	66.9	115.9	147.8	156.8	149.8
87.5°	24.0	43.9	42.9	35.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)