

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: P276344

Luminaire Tested: **24CZ2-60HE-S-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276344  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60HE-S-UNV-L83050-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6296.0 lumens  
Efficiency: N/A  
Efficacy: 139.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

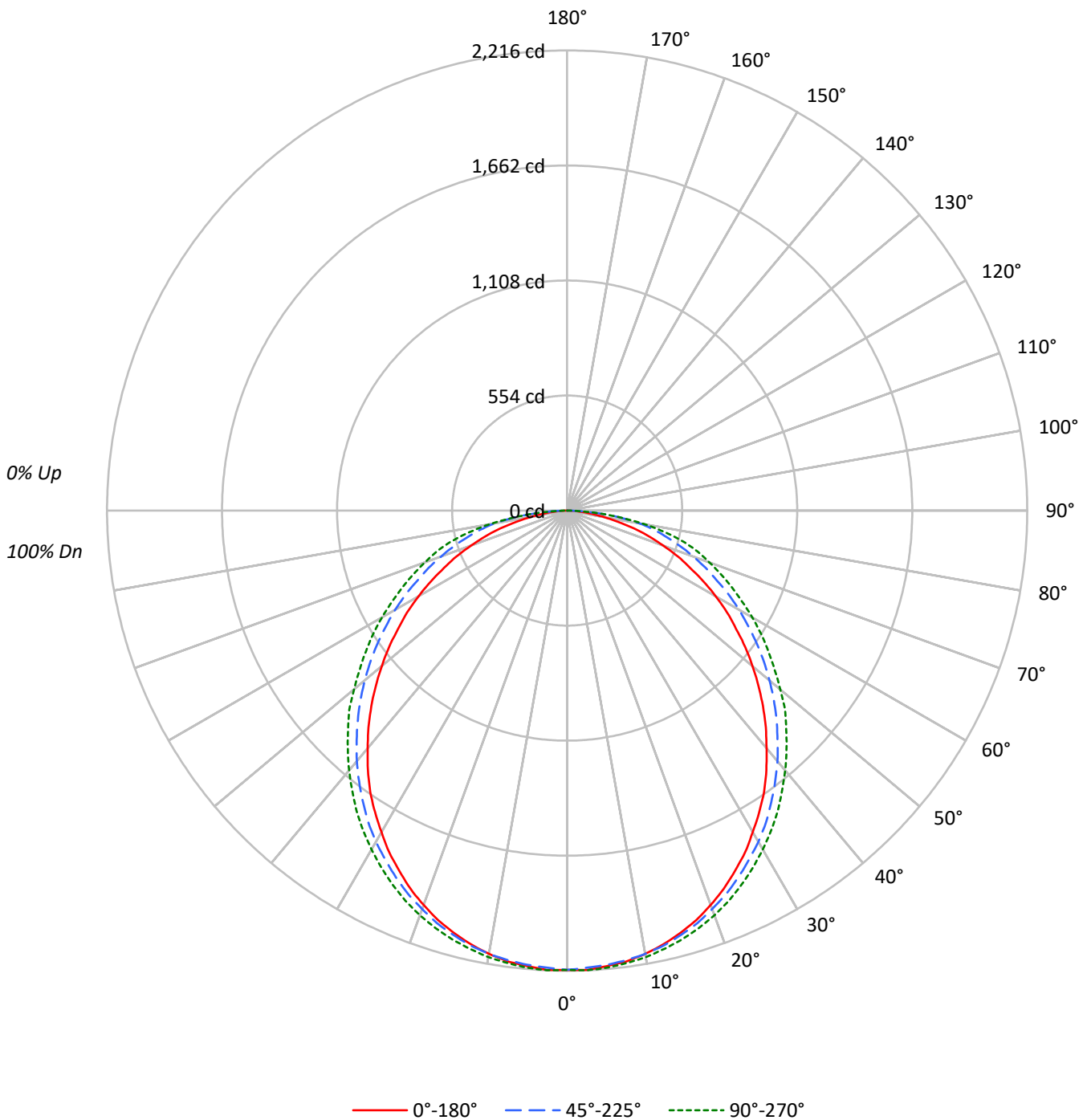
Input Watts (W): 45.286164  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2976	2976	2976
5°	2974	2966	2985
10°	2962	2962	2984
15°	2933	2947	2978
20°	2895	2924	2969
25°	2841	2895	2951
30°	2778	2862	2927
35°	2717	2815	2904
40°	2624	2768	2870
45°	2538	2713	2839
50°	2440	2662	2805
55°	2331	2613	2777
60°	2222	2572	2771
65°	2082	2528	2789
70°	1928	2541	2864
75°	1726	2589	3026
80°	1395	2743	2960
85°	1050	2408	2347



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.4	3.3
10°-20°	598.3	9.5
20°-30°	899.4	14.3
30°-40°	1071.4	17.0
40°-50°	1096.5	17.4
50°-60°	987.1	15.7
60°-70°	775.2	12.3
70°-80°	503.2	8.0
80°-90°	155.6	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°	1707.1	27.1
0°-40°	2778.5	44.1
0°-60°	4862.0	77.2
0°-90°	6296.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6296.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2212	2212	2212	2212	2212	
5°	2202	2206	2196	2208	2210	209
15°	2106	2112	2116	2134	2138	594
25°	1914	1930	1950	1982	1988	882
35°	1654	1674	1714	1756	1768	1032
45°	1334	1366	1426	1480	1492	1028
55°	994	1038	1114	1172	1184	891
65°	654	704	794	860	876	651
75°	332	396	498	566	582	351
85°	68	126	156	152	152	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2211.8	2211.8	2211.8	2211.8	2211.8
2.5°	2213.8	2213.8	2203.8	2213.8	2215.8
5°	2201.8	2205.8	2195.8	2207.8	2209.8
7.5°	2189.8	2189.8	2183.8	2195.8	2197.8
10°	2167.8	2169.8	2167.8	2181.8	2183.8
12.5°	2139.8	2143.8	2145.8	2159.8	2161.8
15°	2105.8	2111.8	2115.8	2133.8	2137.8
17.5°	2067.8	2073.8	2083.8	2103.8	2107.8
20°	2021.8	2029.8	2041.8	2067.8	2073.8
22.5°	1971.8	1979.8	1999.8	2023.8	2033.8
25°	1913.8	1929.8	1949.8	1981.8	1987.8
27.5°	1855.9	1869.9	1895.9	1929.8	1937.8
30°	1787.9	1809.9	1841.9	1875.9	1883.9
32.5°	1721.9	1743.9	1781.9	1817.9	1827.9
35°	1653.9	1673.9	1713.9	1755.9	1767.9
37.5°	1575.9	1601.9	1645.9	1687.9	1699.9
40°	1493.9	1525.9	1575.9	1619.9	1633.9
42.5°	1415.9	1449.9	1499.9	1547.9	1563.9
45°	1333.9	1365.9	1425.9	1479.9	1491.9
47.5°	1249.9	1285.9	1349.9	1403.9	1423.9
50°	1165.9	1203.9	1271.9	1327.9	1339.9
52.5°	1081.9	1121.9	1193.9	1253.9	1259.9
55°	993.9	1037.9	1113.9	1171.9	1183.9
57.5°	913.9	951.9	1033.9	1093.9	1107.9
60°	825.9	867.9	955.9	1011.9	1029.9
62.5°	741.9	785.9	877.9	933.9	949.9
65°	653.9	703.9	793.9	859.9	875.9
67.5°	578.0	626.0	721.9	785.9	801.9
70°	490.0	544.0	645.9	711.9	727.9
72.5°	414.0	470.0	572.0	635.9	659.9
75°	332.0	396.0	498.0	566.0	582.0
77.5°	252.0	326.0	430.0	482.0	482.0
80°	180.0	258.0	354.0	378.0	382.0
82.5°	118.0	194.0	262.0	260.0	260.0
85°	68.0	126.0	156.0	152.0	152.0
87.5°	26.0	52.0	56.0	56.0	54.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)