

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: P276354

Luminaire Tested: **24CZ2-70HE-S-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276354
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: 24CZ2-70HE-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: 7359.0 lumens
Efficiency: N/A
Efficacy: 134.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

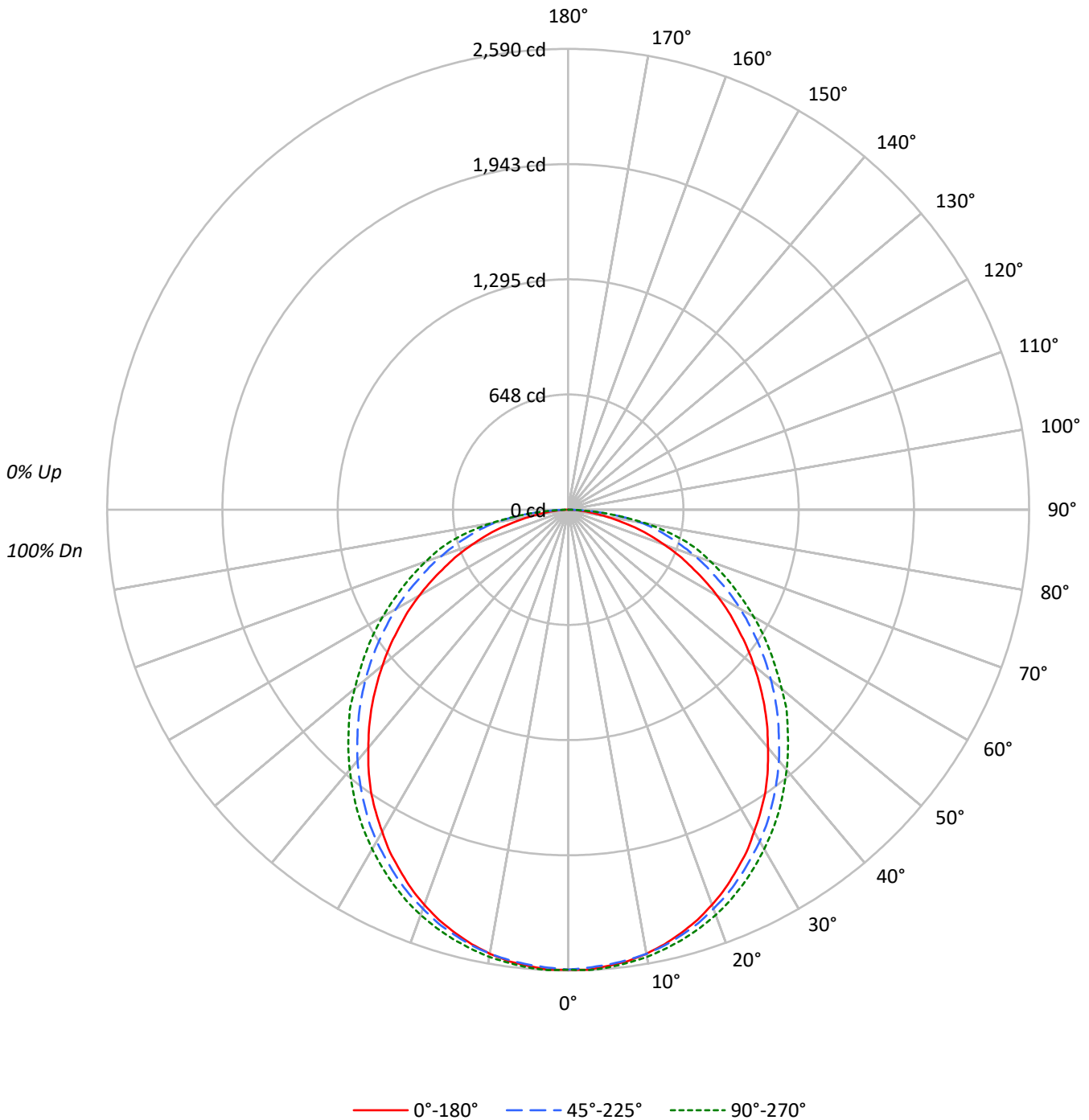
Input Watts (W): 54.895203
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3478	3478	3478
5°	3476	3467	3489
10°	3462	3462	3487
15°	3429	3445	3481
20°	3384	3417	3471
25°	3321	3384	3449
30°	3247	3345	3421
35°	3175	3290	3394
40°	3067	3235	3354
45°	2967	3171	3318
50°	2853	3112	3278
55°	2725	3054	3246
60°	2598	3007	3239
65°	2434	2954	3259
70°	2253	2970	3347
75°	2017	3026	3536
80°	1630	3205	3460
85°	1227	2814	2742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.7	3.3
10°-20°	699.3	9.5
20°-30°	1051.3	14.3
30°-40°	1252.2	17.0
40°-50°	1281.6	17.4
50°-60°	1153.8	15.7
60°-70°	906.1	12.3
70°-80°	588.1	8.0
80°-90°	181.9	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°	1995.3	27.1
0°-40°	3247.6	44.1
0°-60°	5682.9	77.2
0°-90°	7359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2585	2585	2585	2585	2585	
5°	2574	2578	2567	2581	2583	245
15°	2461	2468	2473	2494	2499	694
25°	2237	2256	2279	2316	2324	1031
35°	1933	1956	2003	2052	2066	1206
45°	1559	1596	1667	1730	1744	1202
55°	1162	1213	1302	1370	1384	1041
65°	764	823	928	1005	1024	761
75°	388	463	582	662	680	411
85°	80	147	182	178	178	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2585.3	2585.3	2585.3	2585.3	2585.3
2.5°	2587.6	2587.6	2575.9	2587.6	2589.9
5°	2573.6	2578.3	2566.6	2580.6	2582.9
7.5°	2559.6	2559.6	2552.5	2566.6	2568.9
10°	2533.8	2536.2	2533.8	2550.2	2552.5
12.5°	2501.1	2505.8	2508.1	2524.5	2526.8
15°	2461.4	2468.4	2473.1	2494.1	2498.8
17.5°	2417.0	2424.0	2435.7	2459.0	2463.7
20°	2363.2	2372.6	2386.6	2417.0	2424.0
22.5°	2304.8	2314.1	2337.5	2365.5	2377.2
25°	2237.0	2255.7	2279.1	2316.5	2323.5
27.5°	2169.2	2185.6	2215.9	2255.7	2265.0
30°	2089.7	2115.4	2152.8	2192.6	2201.9
32.5°	2012.6	2038.3	2082.7	2124.8	2136.5
35°	1933.1	1956.5	2003.2	2052.3	2066.3
37.5°	1841.9	1872.3	1923.8	1972.8	1986.9
40°	1746.1	1783.5	1841.9	1893.4	1909.7
42.5°	1654.9	1694.7	1753.1	1809.2	1827.9
45°	1559.1	1596.5	1666.6	1729.7	1743.8
47.5°	1460.9	1503.0	1577.8	1640.9	1664.3
50°	1362.8	1407.2	1486.6	1552.1	1566.1
52.5°	1264.6	1311.3	1395.5	1465.6	1472.6
55°	1161.7	1213.2	1302.0	1369.8	1383.8
57.5°	1068.2	1112.6	1208.5	1278.6	1295.0
60°	965.4	1014.5	1117.3	1182.8	1203.8
62.5°	867.2	918.6	1026.2	1091.6	1110.3
65°	764.4	822.8	928.0	1005.1	1023.8
67.5°	675.5	731.6	843.8	918.6	937.3
70°	572.7	635.8	755.0	832.1	850.8
72.5°	483.9	549.3	668.5	743.3	771.4
75°	388.0	462.8	582.0	661.5	680.2
77.5°	294.5	381.0	502.6	563.3	563.3
80°	210.4	301.5	413.7	441.8	446.5
82.5°	137.9	226.7	306.2	303.9	303.9
85°	79.5	147.3	182.3	177.6	177.6
87.5°	30.4	60.8	65.4	65.4	63.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)