

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: P276684

Luminaire Tested: **24CZ2-75HE-S-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P276684
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: 24CZ2-75HE-S-UNV-L92765-W2A1-U-5500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7033.5 lumens
Efficiency: N/A
Efficacy: 117.1 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

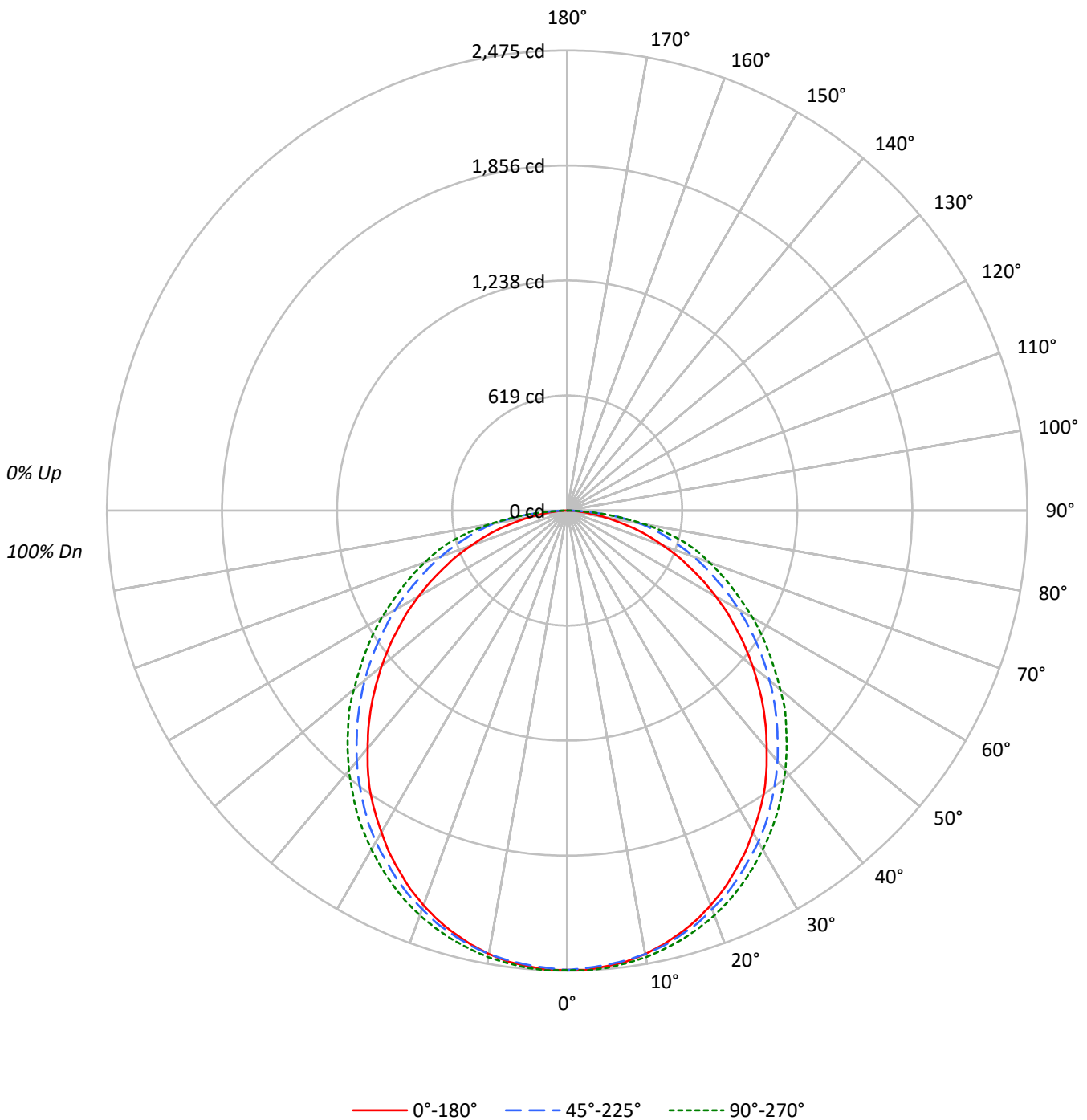
Input Watts (W): 60.078
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3325	3325	3325
5°	3322	3313	3334
10°	3309	3309	3333
15°	3277	3293	3327
20°	3234	3266	3317
25°	3174	3234	3297
30°	3103	3197	3270
35°	3035	3145	3244
40°	2931	3092	3206
45°	2835	3031	3171
50°	2726	2974	3133
55°	2605	2919	3103
60°	2483	2874	3096
65°	2326	2824	3115
70°	2153	2839	3199
75°	1928	2892	3380
80°	1558	3064	3306
85°	1173	2691	2621



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.9	3.3
10°-20°	668.4	9.5
20°-30°	1004.8	14.3
30°-40°	1196.8	17.0
40°-50°	1224.9	17.4
50°-60°	1102.8	15.7
60°-70°	866.0	12.3
70°-80°	562.1	8.0
80°-90°	173.8	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°	1907.1	27.1
0°-40°	3103.9	44.1
0°-60°	5431.6	77.2
0°-90°	7033.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7033.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2471	2471	2471	2471	2471	
5°	2460	2464	2453	2466	2469	234
15°	2352	2359	2364	2384	2388	663
25°	2138	2156	2178	2214	2221	985
35°	1848	1870	1915	1962	1975	1153
45°	1490	1526	1593	1653	1667	1149
55°	1110	1160	1244	1309	1323	995
65°	731	786	887	961	978	727
75°	371	442	556	632	650	392
85°	76	141	174	170	170	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2470.9	2470.9	2470.9	2470.9	2470.9
2.5°	2473.2	2473.2	2462.0	2473.2	2475.4
5°	2459.7	2464.2	2453.0	2466.4	2468.7
7.5°	2446.3	2446.3	2439.6	2453.0	2455.3
10°	2421.8	2424.0	2421.8	2437.4	2439.6
12.5°	2390.5	2395.0	2397.2	2412.8	2415.1
15°	2352.5	2359.2	2363.7	2383.8	2388.3
17.5°	2310.1	2316.8	2327.9	2350.3	2354.7
20°	2258.7	2267.6	2281.0	2310.1	2316.8
22.5°	2202.8	2211.8	2234.1	2260.9	2272.1
25°	2138.0	2155.9	2178.2	2214.0	2220.7
27.5°	2073.2	2088.9	2117.9	2155.9	2164.8
30°	1997.3	2021.9	2057.6	2095.6	2104.5
32.5°	1923.6	1948.1	1990.6	2030.8	2042.0
35°	1847.6	1869.9	1914.6	1961.5	1974.9
37.5°	1760.5	1789.5	1838.7	1885.6	1899.0
40°	1668.9	1704.6	1760.5	1809.6	1825.3
42.5°	1581.7	1619.7	1675.6	1729.2	1747.1
45°	1490.1	1525.9	1592.9	1653.2	1666.6
47.5°	1396.3	1436.5	1508.0	1568.3	1590.7
50°	1302.5	1344.9	1420.9	1483.4	1496.8
52.5°	1208.6	1253.3	1333.8	1400.8	1407.5
55°	1110.3	1159.5	1244.4	1309.2	1322.6
57.5°	1021.0	1063.4	1155.0	1222.1	1237.7
60°	922.7	969.6	1067.9	1130.5	1150.6
62.5°	828.9	878.0	980.8	1043.3	1061.2
65°	730.6	786.4	886.9	960.7	978.5
67.5°	645.7	699.3	806.5	878.0	895.9
70°	547.4	607.7	721.6	795.3	813.2
72.5°	462.5	525.0	639.0	710.4	737.3
75°	370.9	442.4	556.3	632.3	650.1
77.5°	281.5	364.2	480.3	538.4	538.4
80°	201.1	288.2	395.4	422.2	426.7
82.5°	131.8	216.7	292.7	290.4	290.4
85°	76.0	140.7	174.3	169.8	169.8
87.5°	29.0	58.1	62.6	62.6	60.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)