

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: P276664

Luminaire Tested: **24CZ2-65HE-S-UNV-L92765-W2A1-U-4500K**

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: P276664
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: 24CZ2-65HE-S-UNV-L92765-W2A1-U-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5886.4 lumens
Efficiency: N/A
Efficacy: 118.1 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

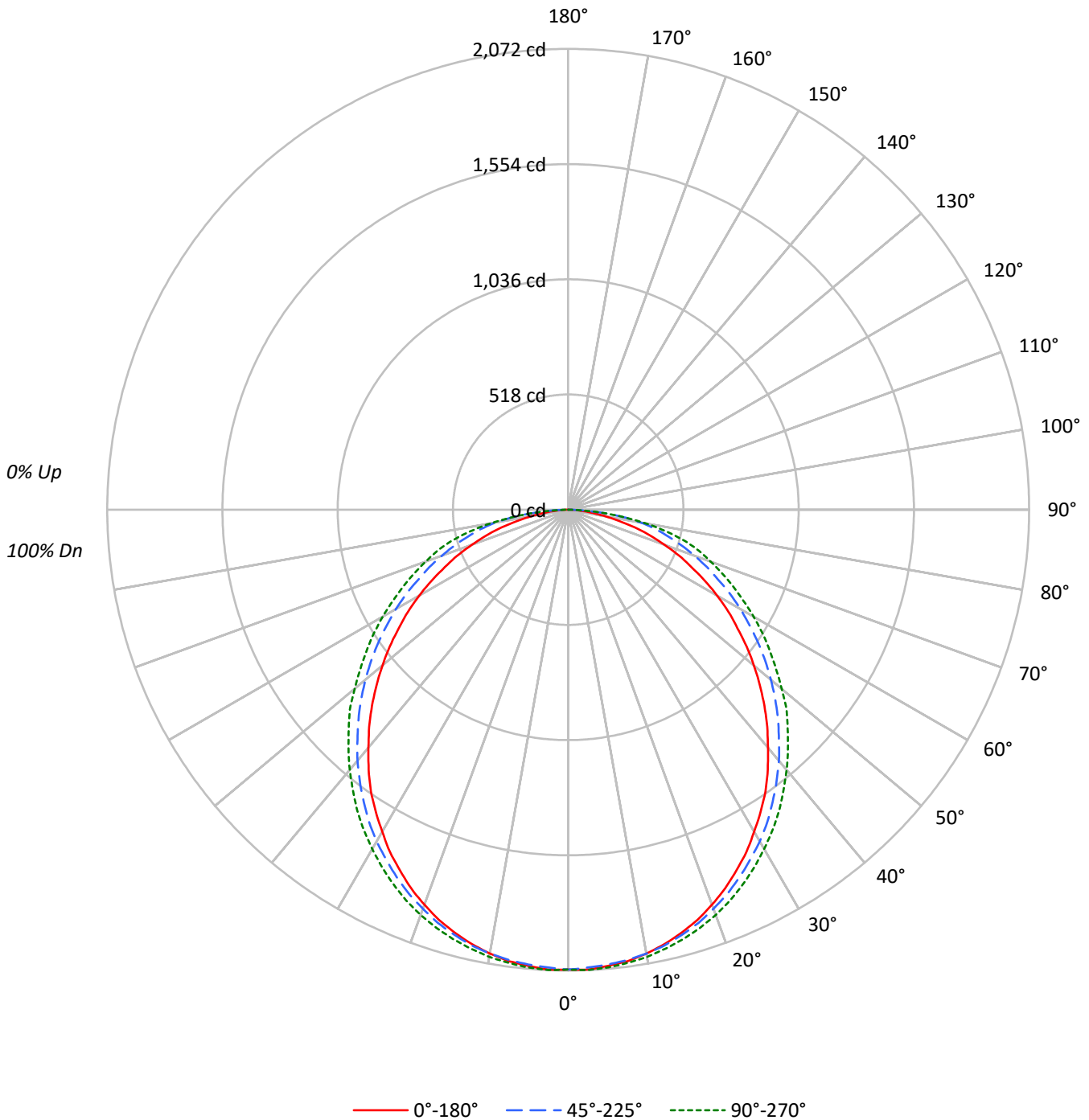
Input Watts (W): 49.848
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2782	2782	2782
5°	2780	2773	2791
10°	2769	2769	2790
15°	2742	2756	2784
20°	2707	2733	2776
25°	2657	2706	2759
30°	2597	2675	2736
35°	2540	2632	2715
40°	2453	2588	2683
45°	2373	2537	2654
50°	2282	2489	2622
55°	2180	2443	2597
60°	2078	2405	2591
65°	1947	2363	2607
70°	1802	2376	2677
75°	1614	2420	2829
80°	1304	2564	2767
85°	982	2251	2194



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.8	3.3
10°-20°	559.4	9.5
20°-30°	840.9	14.3
30°-40°	1001.6	17.0
40°-50°	1025.1	17.4
50°-60°	922.9	15.7
60°-70°	724.8	12.3
70°-80°	470.4	8.0
80°-90°	145.5	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°	1596.1	27.1
0°-40°	2597.7	44.1
0°-60°	4545.8	77.2
0°-90°	5886.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5886.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2068	2068	2068	2068	2068	
5°	2059	2062	2053	2064	2066	196
15°	1969	1974	1978	1995	1999	555
25°	1789	1804	1823	1853	1858	824
35°	1546	1565	1602	1642	1653	965
45°	1247	1277	1333	1384	1395	961
55°	929	970	1042	1096	1107	833
65°	611	658	742	804	819	609
75°	310	370	466	529	544	328
85°	64	118	146	142	142	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2067.9	2067.9	2067.9	2067.9	2067.9
2.5°	2069.8	2069.8	2060.5	2069.8	2071.7
5°	2058.6	2062.3	2053.0	2064.2	2066.1
7.5°	2047.4	2047.4	2041.8	2053.0	2054.9
10°	2026.8	2028.7	2026.8	2039.9	2041.8
12.5°	2000.6	2004.4	2006.2	2019.3	2021.2
15°	1968.8	1974.5	1978.2	1995.0	1998.8
17.5°	1933.3	1938.9	1948.3	1967.0	1970.7
20°	1890.3	1897.8	1909.0	1933.3	1938.9
22.5°	1843.6	1851.1	1869.7	1892.2	1901.5
25°	1789.4	1804.3	1823.0	1852.9	1858.5
27.5°	1735.1	1748.2	1772.5	1804.3	1811.8
30°	1671.6	1692.1	1722.0	1753.8	1761.3
32.5°	1609.9	1630.4	1665.9	1699.6	1709.0
35°	1546.3	1565.0	1602.4	1641.6	1652.9
37.5°	1473.4	1497.7	1538.8	1578.1	1589.3
40°	1396.7	1426.6	1473.4	1514.5	1527.6
42.5°	1323.8	1355.6	1402.3	1447.2	1462.1
45°	1247.1	1277.0	1333.1	1383.6	1394.8
47.5°	1168.6	1202.2	1262.1	1312.6	1331.3
50°	1090.1	1125.6	1189.2	1241.5	1252.7
52.5°	1011.5	1048.9	1116.2	1172.3	1177.9
55°	929.3	970.4	1041.5	1095.7	1106.9
57.5°	854.5	890.0	966.7	1022.8	1035.8
60°	772.2	811.5	893.7	946.1	962.9
62.5°	693.7	734.8	820.8	873.2	888.1
65°	611.4	658.2	742.3	804.0	819.0
67.5°	540.4	585.2	675.0	734.8	749.8
70°	458.1	508.6	603.9	665.6	680.6
72.5°	387.0	439.4	534.7	594.6	617.0
75°	310.4	370.2	465.6	529.1	544.1
77.5°	235.6	304.8	402.0	450.6	450.6
80°	168.3	241.2	330.9	353.4	357.1
82.5°	110.3	181.4	244.9	243.1	243.1
85°	63.6	117.8	145.8	142.1	142.1
87.5°	24.3	48.6	52.4	52.4	50.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)