

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: P276519

Luminaire Tested: **24CZ2-60HE-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276519
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-L82765-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: 5984.8 lumens
Efficiency: N/A
Efficacy: 133.5 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

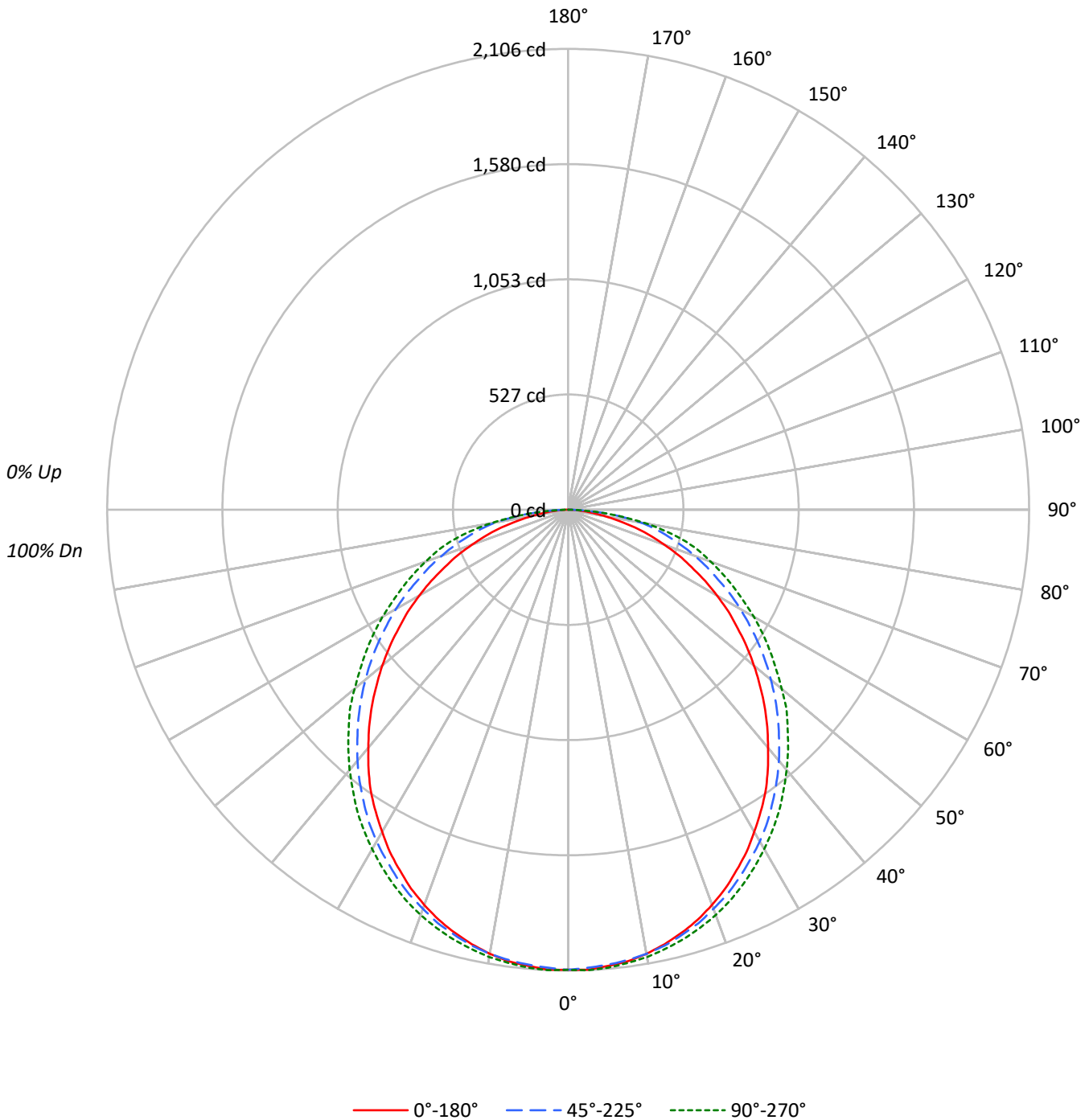
Input Watts (W): 44.826
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2829	2829	2829
5°	2827	2819	2837
10°	2815	2815	2836
15°	2788	2802	2831
20°	2752	2779	2823
25°	2701	2752	2805
30°	2640	2720	2782
35°	2582	2676	2760
40°	2494	2631	2728
45°	2413	2579	2699
50°	2320	2531	2666
55°	2216	2484	2640
60°	2113	2445	2634
65°	1979	2403	2651
70°	1832	2415	2722
75°	1641	2461	2876
80°	1326	2607	2813
85°	997	2289	2231



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.0	3.3
10°-20°	568.7	9.5
20°-30°	855.0	14.3
30°-40°	1018.4	17.0
40°-50°	1042.3	17.4
50°-60°	938.4	15.7
60°-70°	736.9	12.3
70°-80°	478.3	8.0
80°-90°	147.9	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°	1622.7	27.1
0°-40°	2641.1	44.1
0°-60°	4621.8	77.2
0°-90°	5984.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5984.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2102	2102	2102	2102	2102	
5°	2093	2097	2087	2099	2101	199
15°	2002	2008	2011	2028	2032	564
25°	1819	1834	1854	1884	1890	838
35°	1572	1591	1629	1669	1680	981
45°	1268	1298	1355	1407	1418	978
55°	945	987	1059	1114	1125	847
65°	622	669	755	817	833	619
75°	316	376	473	538	553	334
85°	65	120	148	144	144	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2102.5	2102.5	2102.5	2102.5	2102.5
2.5°	2104.4	2104.4	2094.9	2104.4	2106.3
5°	2093.0	2096.8	2087.3	2098.7	2100.6
7.5°	2081.6	2081.6	2075.9	2087.3	2089.2
10°	2060.7	2062.6	2060.7	2074.0	2075.9
12.5°	2034.1	2037.9	2039.8	2053.1	2055.0
15°	2001.8	2007.5	2011.3	2028.4	2032.2
17.5°	1965.6	1971.3	1980.8	1999.9	2003.7
20°	1921.9	1929.5	1940.9	1965.6	1971.3
22.5°	1874.4	1882.0	1901.0	1923.8	1933.3
25°	1819.3	1834.5	1853.5	1883.9	1889.6
27.5°	1764.1	1777.4	1802.2	1834.5	1842.1
30°	1699.5	1720.4	1750.8	1783.1	1790.7
32.5°	1636.8	1657.7	1693.8	1728.0	1737.5
35°	1572.1	1591.1	1629.2	1669.1	1680.5
37.5°	1498.0	1522.7	1564.5	1604.4	1615.9
40°	1420.1	1450.5	1498.0	1539.8	1553.1
42.5°	1345.9	1378.2	1425.8	1471.4	1486.6
45°	1268.0	1298.4	1355.4	1406.7	1418.2
47.5°	1188.1	1222.3	1283.2	1334.5	1353.5
50°	1108.3	1144.4	1209.0	1262.3	1273.7
52.5°	1028.4	1066.5	1134.9	1191.9	1197.6
55°	944.8	986.6	1058.9	1114.0	1125.4
57.5°	868.8	904.9	982.8	1039.9	1053.2
60°	785.1	825.0	908.7	961.9	979.0
62.5°	705.3	747.1	834.5	887.8	903.0
65°	621.6	669.2	754.7	817.4	832.6
67.5°	549.4	595.0	686.3	747.1	762.3
70°	465.7	517.1	614.0	676.8	692.0
72.5°	393.5	446.7	543.7	604.5	627.3
75°	315.6	376.4	473.4	538.0	553.2
77.5°	239.5	309.9	408.7	458.1	458.1
80°	171.1	245.2	336.5	359.3	363.1
82.5°	112.2	184.4	249.0	247.1	247.1
85°	64.6	119.8	148.3	144.5	144.5
87.5°	24.7	49.4	53.2	53.2	51.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)