

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: P276347

Luminaire Tested: **24CZ2-65HE-S-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276347  
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-L83050-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6138.9 lumens  
Efficiency: N/A  
Efficacy: 125.7 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

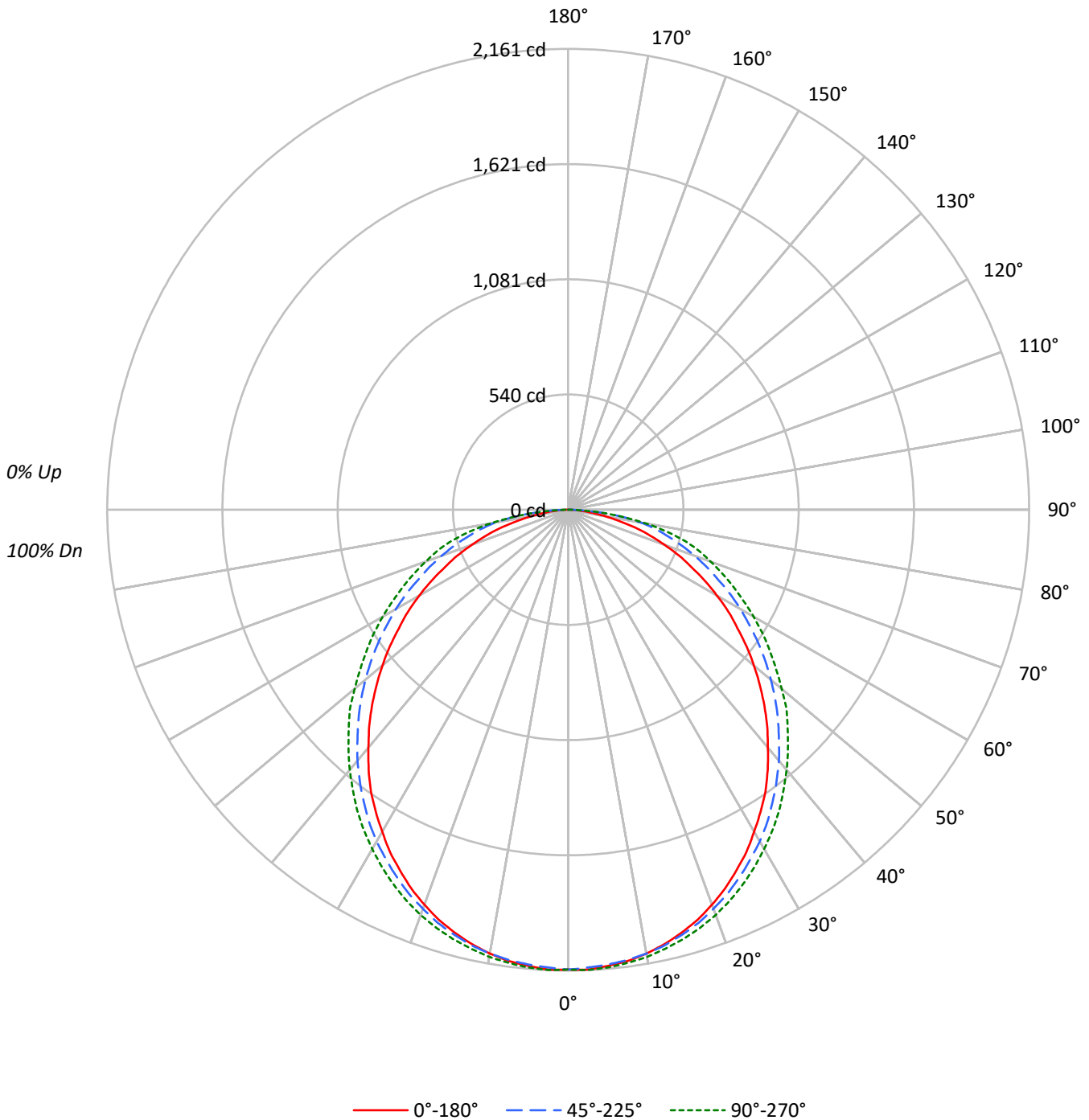
Input Watts (W): 48.820164  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2902	2902	2902
5°	2900	2892	2910
10°	2888	2888	2909
15°	2860	2874	2904
20°	2823	2851	2895
25°	2770	2822	2878
30°	2708	2790	2854
35°	2649	2745	2831
40°	2558	2699	2798
45°	2475	2645	2768
50°	2380	2596	2735
55°	2273	2548	2708
60°	2167	2508	2702
65°	2030	2465	2719
70°	1879	2478	2792
75°	1683	2524	2950
80°	1360	2674	2885
85°	1024	2348	2288



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.2	3.3
10°-20°	583.4	9.5
20°-30°	877.0	14.3
30°-40°	1044.6	17.0
40°-50°	1069.1	17.4
50°-60°	962.5	15.7
60°-70°	755.9	12.3
70°-80°	490.6	8.0
80°-90°	151.7	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°	1664.5	27.1
0°-40°	2709.2	44.1
0°-60°	4740.8	77.2
0°-90°	6138.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6138.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2157	2157	2157	2157	2157	
5°	2147	2151	2141	2153	2155	204
15°	2053	2059	2063	2081	2084	579
25°	1866	1882	1901	1932	1938	860
35°	1613	1632	1671	1712	1724	1006
45°	1301	1332	1390	1443	1455	1003
55°	969	1012	1086	1143	1154	869
65°	638	686	774	838	854	635
75°	324	386	486	552	567	343
85°	66	123	152	148	148	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2156.7	2156.7	2156.7	2156.7	2156.7
2.5°	2158.6	2158.6	2148.9	2158.6	2160.6
5°	2146.9	2150.8	2141.1	2152.8	2154.7
7.5°	2135.2	2135.2	2129.4	2141.1	2143.0
10°	2113.8	2115.7	2113.8	2127.4	2129.4
12.5°	2086.5	2090.4	2092.3	2106.0	2107.9
15°	2053.3	2059.2	2063.1	2080.6	2084.5
17.5°	2016.3	2022.1	2031.9	2051.4	2055.3
20°	1971.4	1979.2	1990.9	2016.3	2022.1
22.5°	1922.7	1930.5	1950.0	1973.4	1983.1
25°	1866.1	1881.7	1901.2	1932.4	1938.3
27.5°	1809.6	1823.2	1848.6	1881.7	1889.5
30°	1743.3	1764.7	1795.9	1829.1	1836.9
32.5°	1678.9	1700.4	1737.4	1772.5	1782.3
35°	1612.6	1632.1	1671.1	1712.1	1723.8
37.5°	1536.6	1561.9	1604.8	1645.8	1657.5
40°	1456.6	1487.8	1536.6	1579.5	1593.1
42.5°	1380.6	1413.7	1462.5	1509.3	1524.9
45°	1300.6	1331.8	1390.3	1443.0	1454.7
47.5°	1218.7	1253.8	1316.2	1368.9	1388.4
50°	1136.8	1173.9	1240.2	1294.8	1306.5
52.5°	1054.9	1093.9	1164.1	1222.6	1228.5
55°	969.1	1012.0	1086.1	1142.7	1154.4
57.5°	891.1	928.2	1008.1	1066.6	1080.3
60°	805.3	846.3	932.1	986.7	1004.2
62.5°	723.4	766.3	856.0	910.6	926.2
65°	637.6	686.4	774.1	838.5	854.1
67.5°	563.5	610.3	703.9	766.3	781.9
70°	477.7	530.4	629.8	694.2	709.8
72.5°	403.6	458.2	557.7	620.1	643.5
75°	323.7	386.1	485.5	551.8	567.4
77.5°	245.7	317.8	419.2	469.9	469.9
80°	175.5	251.5	345.1	368.5	372.4
82.5°	115.0	189.1	255.4	253.5	253.5
85°	66.3	122.8	152.1	148.2	148.2
87.5°	25.3	50.7	54.6	54.6	52.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)