

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: P276348

Luminaire Tested: **24CZ2-65HE-S-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276348  
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-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6497.0 lumens  
Efficiency: N/A  
Efficacy: 132.8 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

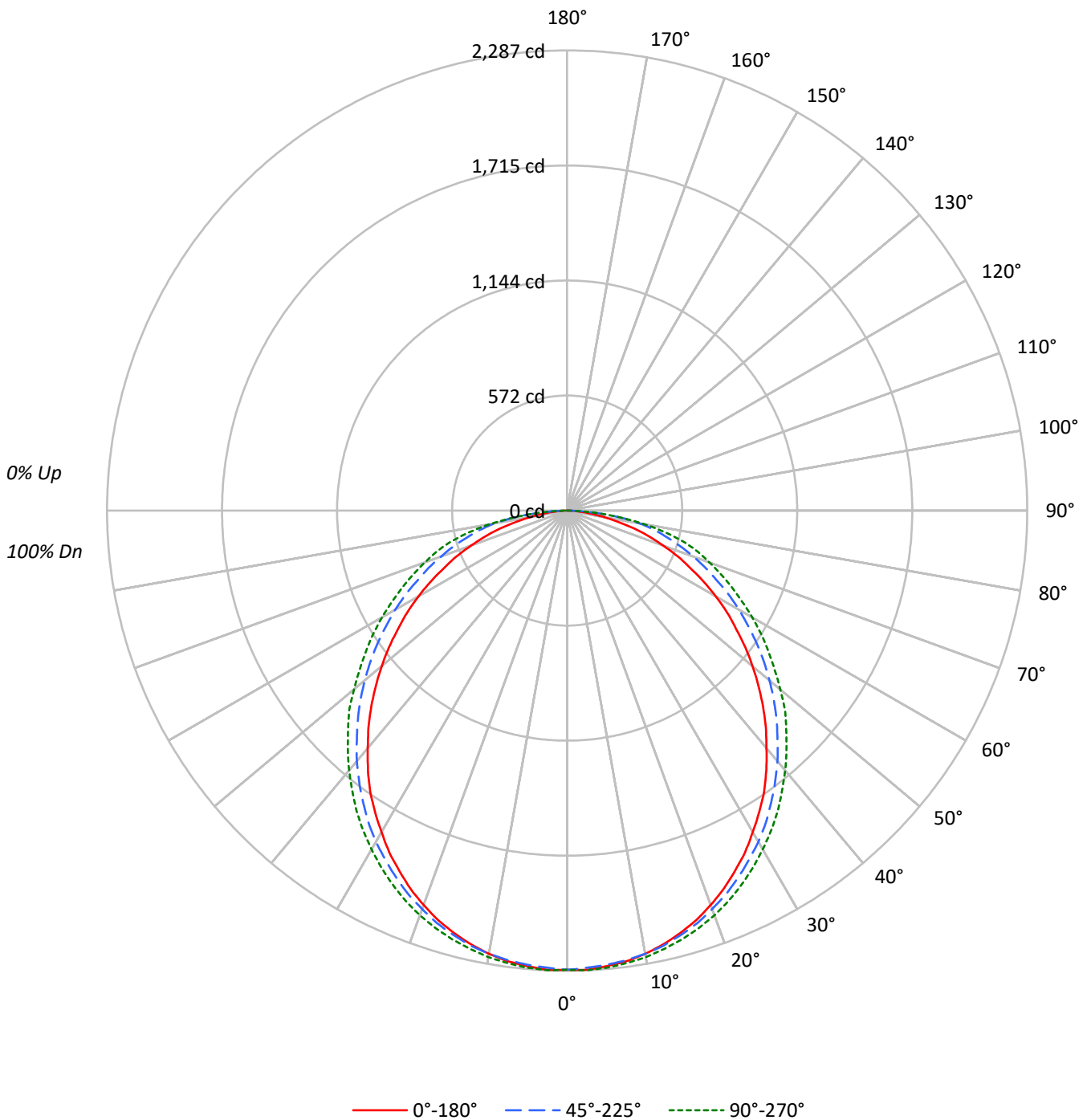
Input Watts (W): 48.918  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3071	3071	3071
5°	3069	3060	3080
10°	3056	3056	3079
15°	3027	3041	3073
20°	2987	3017	3064
25°	2932	2987	3045
30°	2866	2953	3020
35°	2803	2905	2996
40°	2708	2856	2961
45°	2619	2800	2929
50°	2518	2747	2894
55°	2406	2696	2866
60°	2294	2654	2860
65°	2148	2608	2878
70°	1989	2622	2955
75°	1781	2672	3122
80°	1439	2830	3054
85°	1084	2485	2421



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	216.1	3.3
10°-20°	617.4	9.5
20°-30°	928.1	14.3
30°-40°	1105.5	17.0
40°-50°	1131.5	17.4
50°-60°	1018.6	15.7
60°-70°	800.0	12.3
70°-80°	519.2	8.0
80°-90°	160.6	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°	1761.6	27.1
0°-40°	2867.1	44.1
0°-60°	5017.3	77.2
0°-90°	6497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6497.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2282	2282	2282	2282	2282	
5°	2272	2276	2266	2278	2280	216
15°	2173	2179	2183	2202	2206	613
25°	1975	1992	2012	2045	2051	910
35°	1707	1727	1769	1812	1824	1065
45°	1376	1410	1471	1527	1540	1061
55°	1026	1071	1150	1209	1222	920
65°	675	726	819	887	904	672
75°	343	409	514	584	600	363
85°	70	130	161	157	157	85
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2282.4	2282.4	2282.4	2282.4	2282.4
2.5°	2284.5	2284.5	2274.2	2284.5	2286.6
5°	2272.1	2276.2	2265.9	2278.3	2280.4
7.5°	2259.7	2259.7	2253.5	2265.9	2268.0
10°	2237.0	2239.1	2237.0	2251.5	2253.5
12.5°	2208.1	2212.3	2214.3	2228.8	2230.8
15°	2173.1	2179.3	2183.4	2202.0	2206.1
17.5°	2133.9	2140.0	2150.4	2171.0	2175.1
20°	2086.4	2094.6	2107.0	2133.9	2140.0
22.5°	2034.8	2043.1	2063.7	2088.5	2098.8
25°	1974.9	1991.5	2012.1	2045.1	2051.3
27.5°	1915.1	1929.5	1956.4	1991.5	1999.7
30°	1844.9	1867.6	1900.7	1935.7	1944.0
32.5°	1776.8	1799.5	1838.7	1875.9	1886.2
35°	1706.7	1727.3	1768.6	1811.9	1824.3
37.5°	1626.2	1653.0	1698.4	1741.8	1754.1
40°	1541.6	1574.6	1626.2	1671.6	1686.0
42.5°	1461.1	1496.2	1547.8	1597.3	1613.8
45°	1376.5	1409.5	1471.4	1527.1	1539.5
47.5°	1289.8	1327.0	1393.0	1448.7	1469.3
50°	1203.1	1242.3	1312.5	1370.3	1382.7
52.5°	1116.5	1157.7	1232.0	1293.9	1300.1
55°	1025.7	1071.1	1149.5	1209.3	1221.7
57.5°	943.1	982.3	1066.9	1128.8	1143.3
60°	852.3	895.6	986.4	1044.2	1062.8
62.5°	765.6	811.0	906.0	963.7	980.3
65°	674.8	726.4	819.3	887.4	903.9
67.5°	596.4	645.9	745.0	811.0	827.5
70°	505.6	561.3	666.6	734.7	751.2
72.5°	427.2	485.0	590.2	656.3	681.0
75°	342.6	408.6	513.9	584.0	600.5
77.5°	260.0	336.4	443.7	497.3	497.3
80°	185.7	266.2	365.3	390.0	394.2
82.5°	121.8	200.2	270.3	268.3	268.3
85°	70.2	130.0	161.0	156.8	156.8
87.5°	26.8	53.7	57.8	57.8	55.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)