

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: P276537

Luminaire Tested: **24CZ2-70HE-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276537  
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: 24CZ2-70HE-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: 6995.8 lumens  
Efficiency: N/A  
Efficacy: 128.8 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

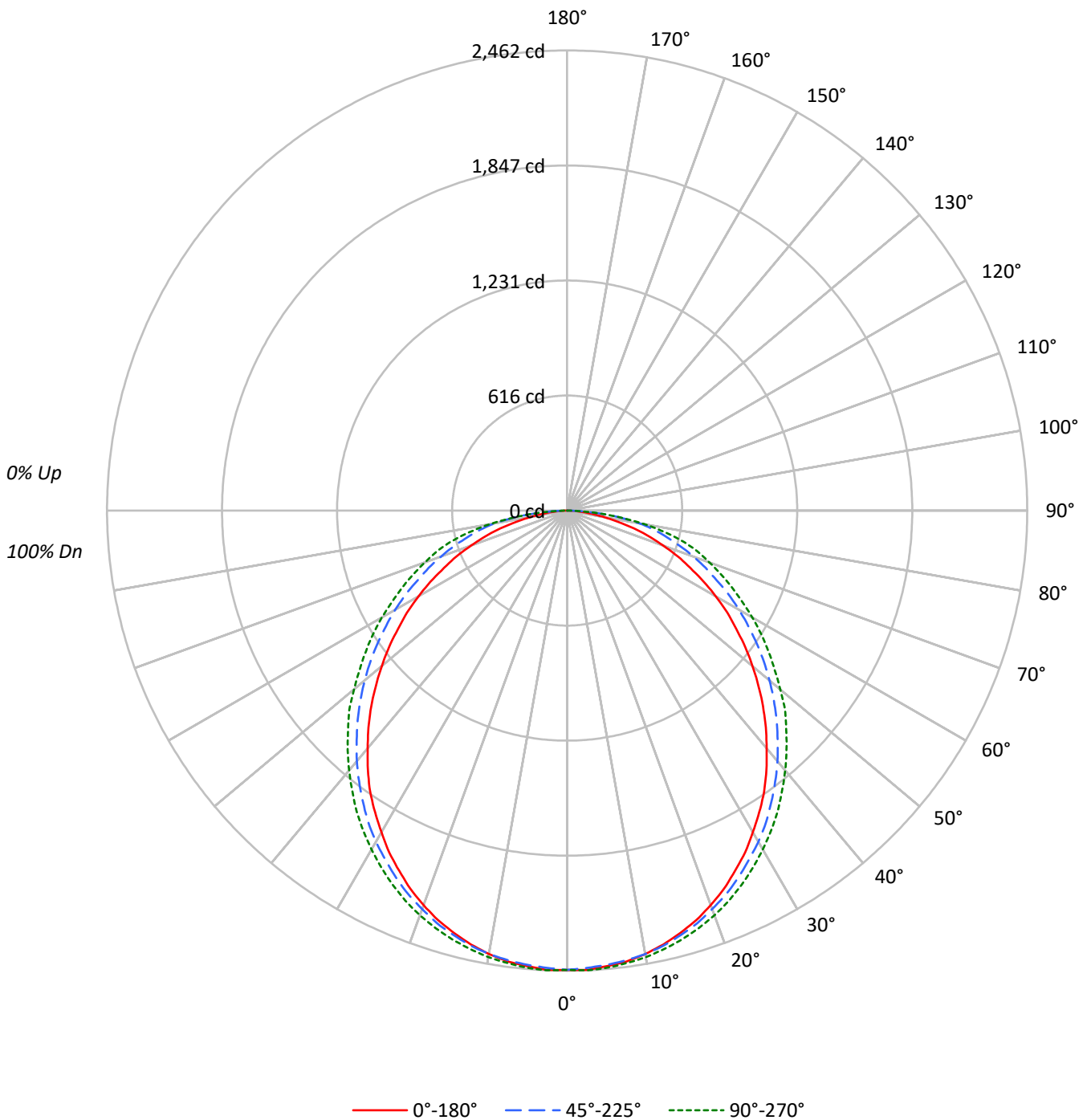
Input Watts (W): 54.312  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3307	3307	3307
5°	3304	3295	3316
10°	3291	3291	3315
15°	3259	3275	3309
20°	3217	3249	3299
25°	3157	3216	3279
30°	3086	3180	3252
35°	3018	3128	3226
40°	2915	3075	3189
45°	2820	3015	3154
50°	2712	2958	3116
55°	2591	2903	3086
60°	2470	2858	3080
65°	2313	2809	3099
70°	2142	2823	3182
75°	1918	2876	3361
80°	1550	3047	3288
85°	1167	2675	2607



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.7	3.3
10°-20°	664.8	9.5
20°-30°	999.4	14.3
30°-40°	1190.4	17.0
40°-50°	1218.3	17.4
50°-60°	1096.9	15.7
60°-70°	861.4	12.3
70°-80°	559.1	8.0
80°-90°	172.9	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°	1896.8	27.1
0°-40°	3087.3	44.1
0°-60°	5402.4	77.2
0°-90°	6995.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6995.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2458	2458	2458	2458	2458	
5°	2446	2451	2440	2453	2455	232
15°	2340	2346	2351	2371	2375	660
25°	2127	2144	2167	2202	2209	980
35°	1838	1860	1904	1951	1964	1146
45°	1482	1518	1584	1644	1658	1143
55°	1104	1153	1238	1302	1316	990
65°	727	782	882	956	973	723
75°	369	440	553	629	647	390
85°	76	140	173	169	169	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2457.6	2457.6	2457.6	2457.6	2457.6
2.5°	2459.9	2459.9	2448.8	2459.9	2462.1
5°	2446.5	2451.0	2439.9	2453.2	2455.4
7.5°	2433.2	2433.2	2426.5	2439.9	2442.1
10°	2408.8	2411.0	2408.8	2424.3	2426.5
12.5°	2377.7	2382.1	2384.3	2399.9	2402.1
15°	2339.9	2346.5	2351.0	2371.0	2375.4
17.5°	2297.7	2304.3	2315.4	2337.7	2342.1
20°	2246.5	2255.4	2268.8	2297.7	2304.3
22.5°	2191.0	2199.9	2222.1	2248.8	2259.9
25°	2126.6	2144.3	2166.6	2202.1	2208.8
27.5°	2062.1	2077.7	2106.6	2144.3	2153.2
30°	1986.6	2011.0	2046.6	2084.3	2093.2
32.5°	1913.2	1937.7	1979.9	2019.9	2031.0
35°	1837.7	1859.9	1904.3	1951.0	1964.3
37.5°	1751.0	1779.9	1828.8	1875.5	1888.8
40°	1659.9	1695.5	1751.0	1799.9	1815.5
42.5°	1573.2	1611.0	1666.6	1719.9	1737.7
45°	1482.1	1517.7	1584.4	1644.4	1657.7
47.5°	1388.8	1428.8	1499.9	1559.9	1582.1
50°	1295.5	1337.7	1413.3	1475.5	1488.8
52.5°	1202.2	1246.6	1326.6	1393.3	1399.9
55°	1104.4	1153.3	1237.7	1302.2	1315.5
57.5°	1015.5	1057.7	1148.8	1215.5	1231.0
60°	917.7	964.4	1062.2	1124.4	1144.4
62.5°	824.4	873.3	975.5	1037.7	1055.5
65°	726.6	782.2	882.2	955.5	973.3
67.5°	642.2	695.5	802.2	873.3	891.1
70°	544.4	604.4	717.7	791.1	808.8
72.5°	460.0	522.2	635.5	706.6	733.3
75°	368.9	440.0	553.3	628.9	646.6
77.5°	280.0	362.2	477.8	535.5	535.5
80°	200.0	286.7	393.3	420.0	424.4
82.5°	131.1	215.5	291.1	288.9	288.9
85°	75.6	140.0	173.3	168.9	168.9
87.5°	28.9	57.8	62.2	62.2	60.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)