

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: P276353

Luminaire Tested: **24CZ2-70HE-S-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276353
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-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: 7009.0 lumens
Efficiency: N/A
Efficacy: 130.6 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

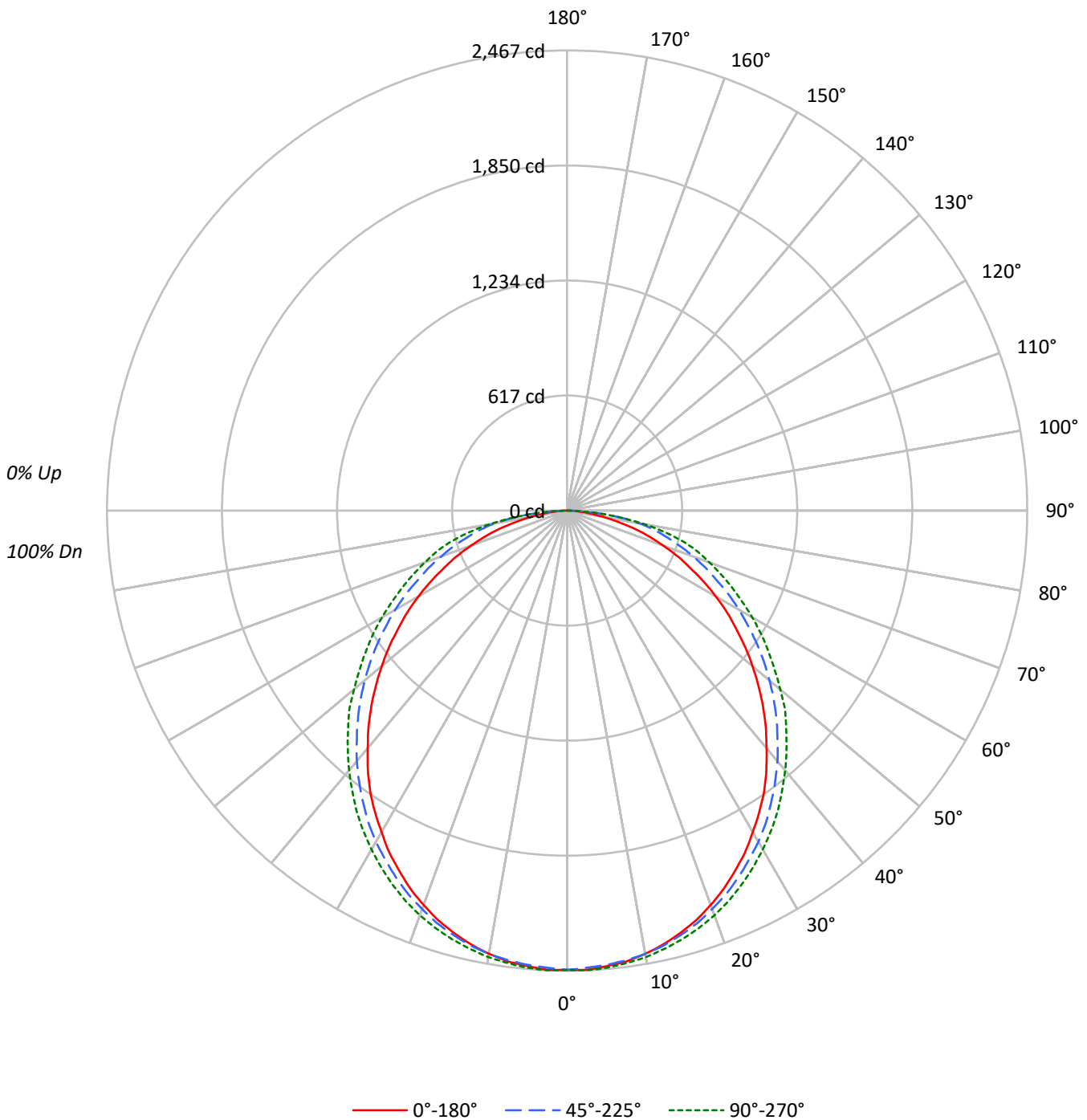
Input Watts (W): 53.661
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3313	3313	3313
5°	3311	3302	3323
10°	3297	3297	3321
15°	3265	3281	3315
20°	3223	3255	3306
25°	3163	3223	3285
30°	3092	3186	3258
35°	3024	3134	3233
40°	2921	3081	3195
45°	2826	3021	3160
50°	2717	2964	3122
55°	2596	2909	3092
60°	2474	2864	3085
65°	2318	2814	3104
70°	2146	2829	3188
75°	1921	2882	3368
80°	1553	3054	3295
85°	1169	2682	2612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.1	3.3
10°-20°	666.1	9.5
20°-30°	1001.3	14.3
30°-40°	1192.7	17.0
40°-50°	1220.6	17.4
50°-60°	1098.9	15.7
60°-70°	863.0	12.3
70°-80°	560.1	8.0
80°-90°	173.2	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°	1900.4	27.1
0°-40°	3093.1	44.1
0°-60°	5412.7	77.2
0°-90°	7009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7009.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2462	2462	2462	2462	2462	
5°	2451	2456	2444	2458	2460	233
15°	2344	2351	2355	2376	2380	661
25°	2131	2148	2171	2206	2213	981
35°	1841	1863	1908	1955	1968	1149
45°	1485	1521	1587	1648	1661	1145
55°	1106	1156	1240	1305	1318	992
65°	728	784	884	957	975	725
75°	370	441	554	630	648	391
85°	76	140	174	169	169	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2462.3	2462.3	2462.3	2462.3	2462.3
2.5°	2464.5	2464.5	2453.4	2464.5	2466.8
5°	2451.2	2455.6	2444.5	2457.9	2460.1
7.5°	2437.8	2437.8	2431.1	2444.5	2446.7
10°	2413.3	2415.6	2413.3	2428.9	2431.1
12.5°	2382.2	2386.6	2388.8	2404.4	2406.6
15°	2344.3	2351.0	2355.4	2375.5	2379.9
17.5°	2302.0	2308.7	2319.8	2342.1	2346.5
20°	2250.8	2259.7	2273.1	2302.0	2308.7
22.5°	2195.1	2204.1	2226.3	2253.0	2264.2
25°	2130.6	2148.4	2170.7	2206.3	2213.0
27.5°	2066.0	2081.6	2110.5	2148.4	2157.3
30°	1990.3	2014.8	2050.4	2088.3	2097.2
32.5°	1916.9	1941.3	1983.6	2023.7	2034.9
35°	1841.2	1863.4	1908.0	1954.7	1968.1
37.5°	1754.3	1783.3	1832.3	1879.0	1892.4
40°	1663.1	1698.7	1754.3	1803.3	1818.9
42.5°	1576.2	1614.1	1669.7	1723.2	1741.0
45°	1485.0	1520.6	1587.4	1647.5	1660.8
47.5°	1391.4	1431.5	1502.8	1562.9	1585.1
50°	1297.9	1340.2	1415.9	1478.3	1491.6
52.5°	1204.4	1249.0	1329.1	1395.9	1402.6
55°	1106.5	1155.5	1240.1	1304.6	1318.0
57.5°	1017.4	1059.7	1151.0	1217.8	1233.4
60°	919.5	966.2	1064.2	1126.5	1146.6
62.5°	826.0	874.9	977.4	1039.7	1057.5
65°	728.0	783.7	883.8	957.3	975.1
67.5°	643.4	696.8	803.7	874.9	892.8
70°	545.4	605.6	719.1	792.6	810.4
72.5°	460.8	523.2	636.7	708.0	734.7
75°	369.6	440.8	554.4	630.0	647.9
77.5°	280.5	362.9	478.7	536.5	536.5
80°	200.4	287.2	394.1	420.8	425.2
82.5°	131.4	216.0	291.6	289.4	289.4
85°	75.7	140.3	173.7	169.2	169.2
87.5°	28.9	57.9	62.3	62.3	60.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)