

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: P276434

Luminaire Tested: **24CZ2-75HE-S-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P276434
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: 24CZ2-75HE-S-UNV-L93050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6878.3 lumens
Efficiency: N/A
Efficacy: 114.8 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

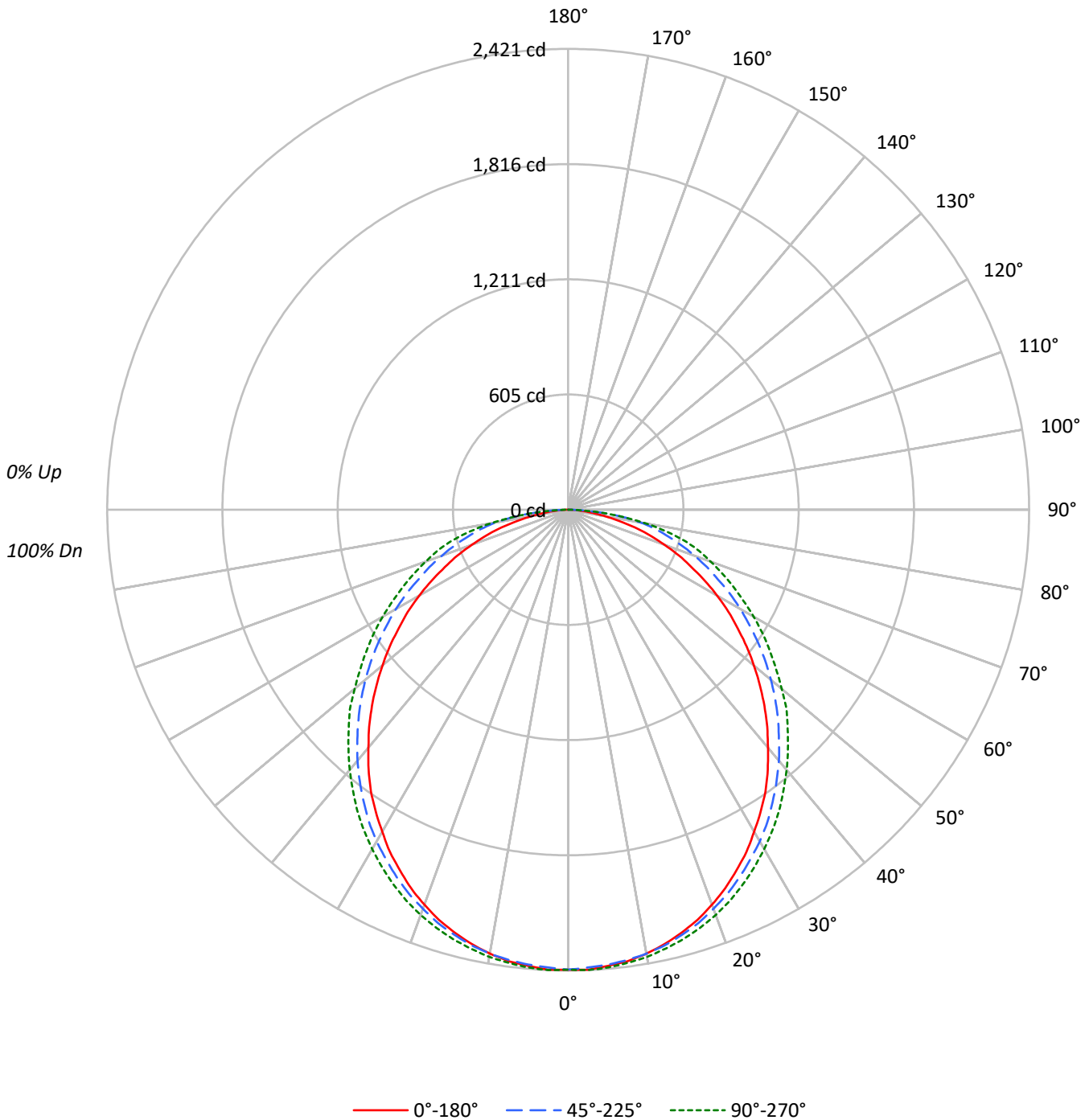
Input Watts (W): 59.922504
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3251	3251	3251
5°	3249	3240	3261
10°	3236	3236	3260
15°	3205	3220	3253
20°	3163	3194	3244
25°	3104	3162	3224
30°	3035	3126	3198
35°	2968	3075	3172
40°	2867	3024	3135
45°	2773	2964	3101
50°	2666	2909	3064
55°	2547	2855	3034
60°	2428	2810	3028
65°	2274	2762	3046
70°	2106	2776	3129
75°	1886	2828	3305
80°	1523	2996	3233
85°	1147	2631	2563



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.8	3.3
10°-20°	653.7	9.5
20°-30°	982.6	14.3
30°-40°	1170.4	17.0
40°-50°	1197.9	17.4
50°-60°	1078.4	15.7
60°-70°	846.9	12.3
70°-80°	549.7	8.0
80°-90°	170.0	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°	1865.0	27.1
0°-40°	3035.4	44.1
0°-60°	5311.7	77.2
0°-90°	6878.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6878.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2416	2416	2416	2416	2416	
5°	2406	2410	2399	2412	2414	229
15°	2301	2307	2312	2331	2336	649
25°	2091	2108	2130	2165	2172	963
35°	1807	1829	1872	1918	1931	1127
45°	1457	1492	1558	1617	1630	1123
55°	1086	1134	1217	1280	1293	973
65°	714	769	867	940	957	711
75°	363	433	544	618	636	384
85°	74	138	170	166	166	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2416.4	2416.4	2416.4	2416.4	2416.4
2.5°	2418.6	2418.6	2407.7	2418.6	2420.8
5°	2405.5	2409.8	2398.9	2412.0	2414.2
7.5°	2392.4	2392.4	2385.8	2398.9	2401.1
10°	2368.3	2370.5	2368.3	2383.6	2385.8
12.5°	2337.7	2342.1	2344.3	2359.6	2361.8
15°	2300.6	2307.2	2311.5	2331.2	2335.6
17.5°	2259.1	2265.6	2276.6	2298.4	2302.8
20°	2208.8	2217.6	2230.7	2259.1	2265.6
22.5°	2154.2	2163.0	2184.8	2211.0	2222.0
25°	2090.9	2108.3	2130.2	2165.1	2171.7
27.5°	2027.5	2042.8	2071.2	2108.3	2117.1
30°	1953.2	1977.3	2012.2	2049.4	2058.1
32.5°	1881.1	1905.2	1946.7	1986.0	1996.9
35°	1806.8	1828.7	1872.4	1918.3	1931.4
37.5°	1721.6	1750.0	1798.1	1844.0	1857.1
40°	1632.1	1667.0	1721.6	1769.7	1785.0
42.5°	1546.8	1584.0	1638.6	1691.0	1708.5
45°	1457.3	1492.2	1557.8	1616.8	1629.9
47.5°	1365.5	1404.8	1474.7	1533.7	1555.6
50°	1273.7	1315.3	1389.5	1450.7	1463.8
52.5°	1182.0	1225.7	1304.3	1369.9	1376.4
55°	1085.9	1133.9	1216.9	1280.3	1293.4
57.5°	998.5	1040.0	1129.5	1195.1	1210.4
60°	902.3	948.2	1044.3	1105.5	1125.2
62.5°	810.6	858.6	959.1	1020.3	1037.8
65°	714.4	769.1	867.4	939.5	956.9
67.5°	631.4	683.8	788.7	858.6	876.1
70°	535.3	594.3	705.7	777.8	795.3
72.5°	452.3	513.4	624.9	694.8	721.0
75°	362.7	432.6	544.0	618.3	635.8
77.5°	275.3	356.1	469.7	526.5	526.5
80°	196.6	281.8	386.7	412.9	417.3
82.5°	128.9	211.9	286.2	284.0	284.0
85°	74.3	137.6	170.4	166.0	166.0
87.5°	28.4	56.8	61.2	61.2	59.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)