

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: P230063

Luminaire Tested: **24CZ-LD5-70-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230063
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-70-S-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6936.0 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

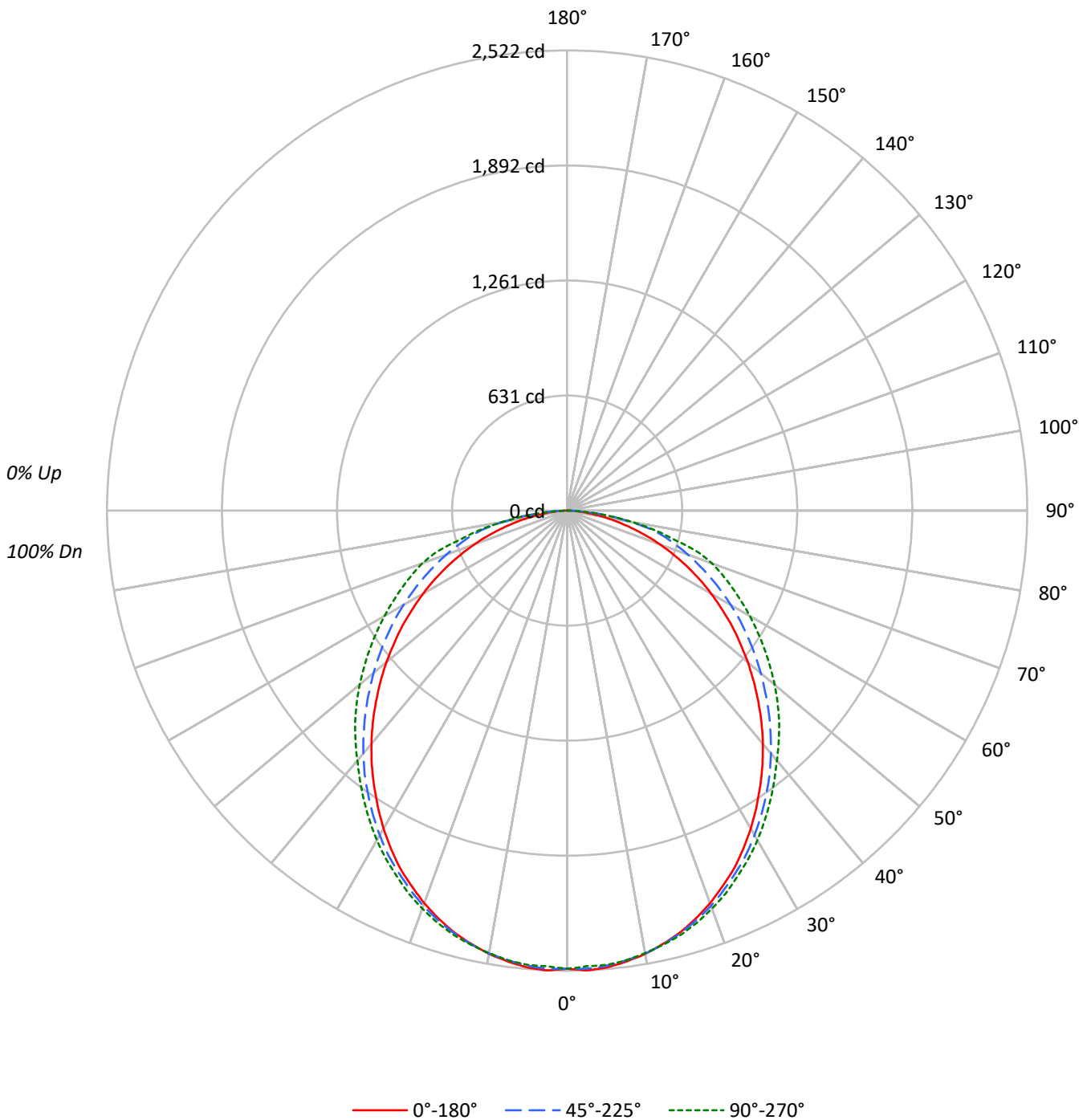
Input Watts (W): 64.22
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3379	3379	3379
5°	3395	3382	3376
10°	3371	3368	3364
15°	3334	3340	3353
20°	3278	3301	3324
25°	3214	3248	3282
30°	3127	3191	3241
35°	3029	3124	3188
40°	2931	3052	3142
45°	2819	2973	3127
50°	2705	2898	3106
55°	2588	2837	3097
60°	2453	2788	3111
65°	2307	2755	3174
70°	2124	2769	3323
75°	1883	2868	3095
80°	1574	2718	2789
85°	1176	2174	1995



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.4	3.4
10°-20°	675.2	9.7
20°-30°	1006.2	14.5
30°-40°	1184.4	17.1
40°-50°	1203.6	17.4
50°-60°	1082.2	15.6
60°-70°	854.9	12.3
70°-80°	542.4	7.8
80°-90°	149.7	2.2
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°	1918.8	27.7
0°-40°	3103.2	44.7
0°-60°	5389.0	77.7
0°-90°	6936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2511	2511	2511	2511	2511	
5°	2513	2492	2504	2499	2499	238
15°	2393	2382	2398	2405	2407	674
25°	2165	2162	2188	2202	2211	995
35°	1844	1856	1902	1922	1941	1154
45°	1482	1502	1562	1609	1643	1143
55°	1103	1131	1209	1288	1320	985
65°	725	762	866	960	997	718
75°	362	425	552	600	595	386
85°	76	132	141	129	129	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2511.0	2511.0	2511.0	2511.0	2511.0
2.5°	2522.5	2504.0	2513.3	2508.7	2499.4
5°	2513.3	2492.5	2504.0	2499.4	2499.4
7.5°	2492.5	2476.3	2485.6	2483.3	2485.6
10°	2467.1	2451.0	2464.8	2464.8	2462.5
12.5°	2432.5	2418.6	2434.8	2434.8	2437.1
15°	2393.3	2381.7	2397.9	2404.8	2407.1
17.5°	2344.8	2333.3	2354.0	2360.9	2367.9
20°	2289.4	2284.8	2305.6	2312.5	2321.7
22.5°	2227.1	2227.1	2247.9	2257.1	2270.9
25°	2164.8	2162.5	2187.9	2201.7	2210.9
27.5°	2090.9	2093.2	2125.5	2139.4	2150.9
30°	2012.5	2017.1	2054.0	2070.2	2086.3
32.5°	1929.4	1938.6	1980.2	1998.6	2014.8
35°	1844.0	1855.5	1901.7	1922.5	1940.9
37.5°	1758.6	1774.7	1823.2	1844.0	1864.8
40°	1668.6	1682.4	1737.8	1763.2	1788.6
42.5°	1576.3	1594.7	1650.1	1687.1	1717.1
45°	1481.7	1502.4	1562.4	1608.6	1643.2
47.5°	1387.0	1414.7	1472.4	1534.7	1564.7
50°	1292.4	1320.1	1384.7	1454.0	1484.0
52.5°	1195.5	1223.2	1297.0	1368.6	1400.9
55°	1103.2	1130.9	1209.3	1287.8	1320.1
57.5°	1006.2	1036.2	1123.9	1204.7	1237.0
60°	911.6	941.6	1036.2	1121.6	1156.2
62.5°	819.3	851.6	950.8	1040.8	1075.5
65°	724.7	761.6	865.5	960.1	997.0
67.5°	632.4	673.9	782.4	881.6	920.8
70°	540.0	588.5	703.9	805.4	844.7
72.5°	450.0	503.1	625.4	727.0	747.7
75°	362.3	424.6	551.6	600.0	595.4
77.5°	279.3	348.5	468.5	477.7	491.6
80°	203.1	279.3	350.8	369.3	360.0
82.5°	133.9	210.0	251.6	242.3	240.0
85°	76.2	131.5	140.8	129.2	129.2
87.5°	32.3	53.1	46.2	34.6	32.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)