

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: P260658

Luminaire Tested: **24CZ-LD5-60-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260658
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-60-UNV-L93050-W2A1-U-3500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5127.2 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

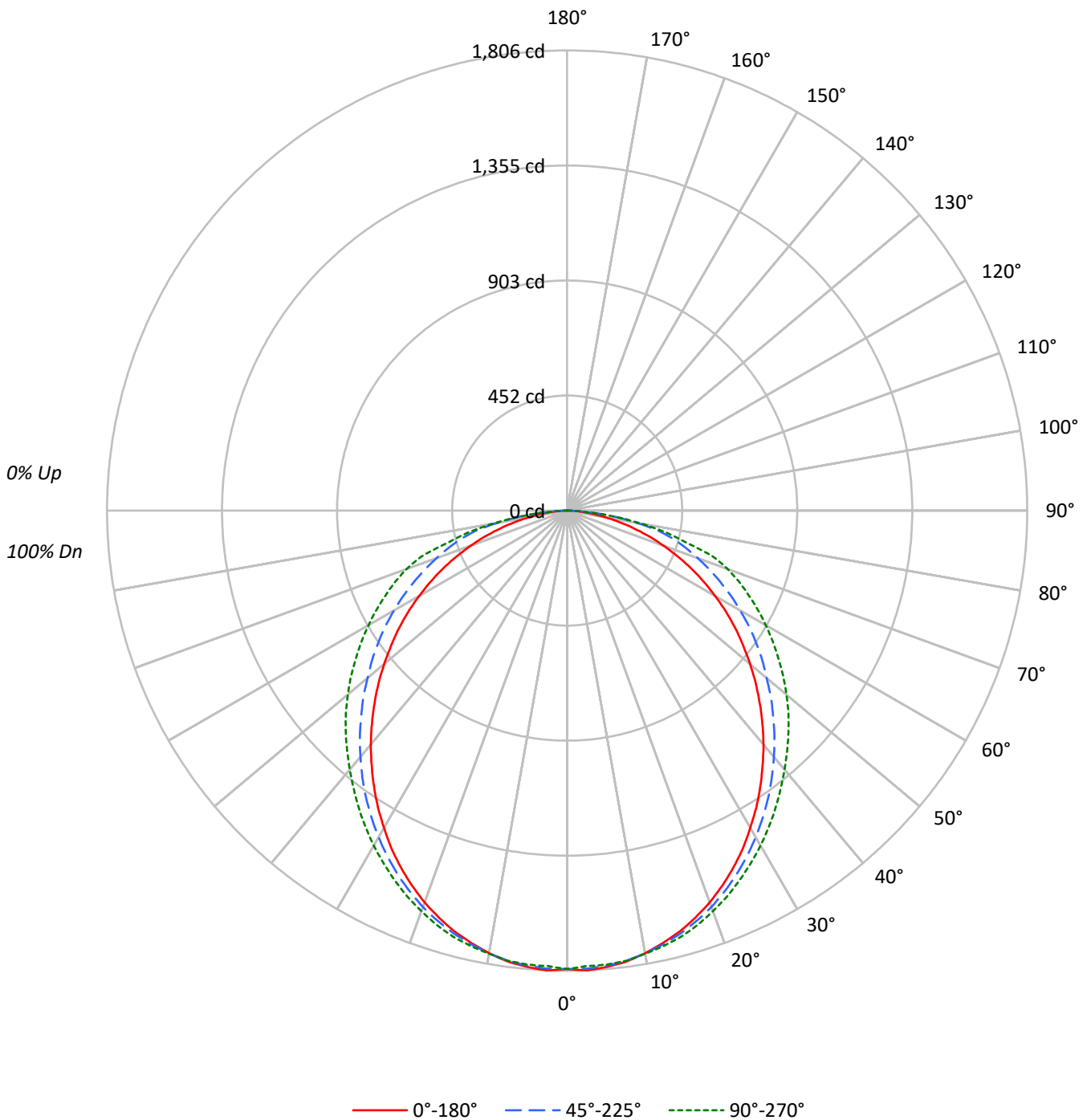
Input Watts (W): 45.109092
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2421	2421	2421
5°	2428	2421	2416
10°	2410	2410	2413
15°	2382	2394	2411
20°	2343	2370	2395
25°	2293	2338	2377
30°	2234	2299	2359
35°	2171	2261	2341
40°	2106	2217	2331
45°	2034	2175	2338
50°	1962	2139	2352
55°	1890	2125	2376
60°	1805	2112	2423
65°	1710	2113	2504
70°	1581	2148	2638
75°	1415	2245	2510
80°	1183	2149	2299
85°	894	1653	1572



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.0	3.3
10°-20°	483.9	9.4
20°-30°	723.5	14.1
30°-40°	858.3	16.7
40°-50°	883.4	17.2
50°-60°	810.4	15.8
60°-70°	655.2	12.8
70°-80°	425.3	8.3
80°-90°	117.3	2.3
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°	1377.4	26.9
0°-40°	2235.7	43.6
0°-60°	3929.4	76.6
0°-90°	5127.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5127.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1799	1799	1799	1799	1799	
5°	1798	1785	1792	1791	1789	171
15°	1710	1703	1719	1726	1731	482
25°	1545	1547	1575	1589	1601	711
35°	1322	1332	1376	1406	1426	827
45°	1069	1087	1143	1197	1229	825
55°	806	830	906	980	1013	720
65°	537	569	664	751	786	531
75°	272	323	432	483	483	289
85°	58	98	107	104	102	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1799.4	1799.4	1799.4	1799.4	1799.4
2.5°	1806.4	1792.4	1799.4	1797.6	1788.8
5°	1797.6	1785.3	1792.4	1790.6	1788.8
7.5°	1785.3	1773.0	1781.8	1780.1	1781.8
10°	1764.3	1753.7	1764.3	1766.0	1766.0
12.5°	1737.9	1729.2	1743.2	1746.7	1750.2
15°	1709.9	1702.8	1718.6	1725.6	1730.9
17.5°	1674.7	1669.5	1688.8	1697.6	1704.6
20°	1636.1	1634.4	1655.4	1664.2	1673.0
22.5°	1592.2	1592.2	1616.8	1627.3	1639.6
25°	1544.8	1546.6	1574.7	1588.7	1601.0
27.5°	1493.9	1495.7	1529.0	1546.6	1560.6
30°	1437.7	1444.8	1479.9	1502.7	1518.5
32.5°	1381.6	1390.4	1429.0	1455.3	1472.9
35°	1321.9	1332.4	1376.3	1406.2	1425.5
37.5°	1260.4	1272.7	1320.1	1353.5	1376.3
40°	1199.0	1213.0	1262.2	1300.8	1327.2
42.5°	1134.0	1149.8	1204.3	1249.9	1278.0
45°	1069.1	1086.7	1142.8	1197.2	1228.8
47.5°	1004.1	1025.2	1084.9	1144.6	1177.9
50°	937.4	958.5	1021.7	1090.2	1123.5
52.5°	870.7	895.3	965.5	1035.7	1069.1
55°	805.8	830.3	905.8	979.6	1012.9
57.5°	739.1	763.6	846.1	923.4	956.7
60°	670.6	698.7	784.7	863.7	900.6
62.5°	603.9	633.7	725.0	809.3	844.4
65°	537.2	568.8	663.6	751.4	786.5
67.5°	468.7	505.6	603.9	693.4	730.3
70°	402.0	442.4	546.0	635.5	670.6
72.5°	337.1	380.9	488.0	579.3	600.4
75°	272.1	323.0	431.9	482.8	482.8
77.5°	210.7	266.8	368.7	388.0	398.5
80°	152.7	214.2	277.4	300.2	296.7
82.5°	101.8	163.3	198.4	198.4	193.1
85°	57.9	98.3	107.1	103.6	101.8
87.5°	24.6	36.9	33.4	26.3	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)