

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: P260645

Luminaire Tested: **24CZ-LD5-45-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260645
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-LD5-45-UNV-L93050-W2A1-U-4500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED AT 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4189.0 lumens
Efficiency: N/A
Efficacy: 127.9 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

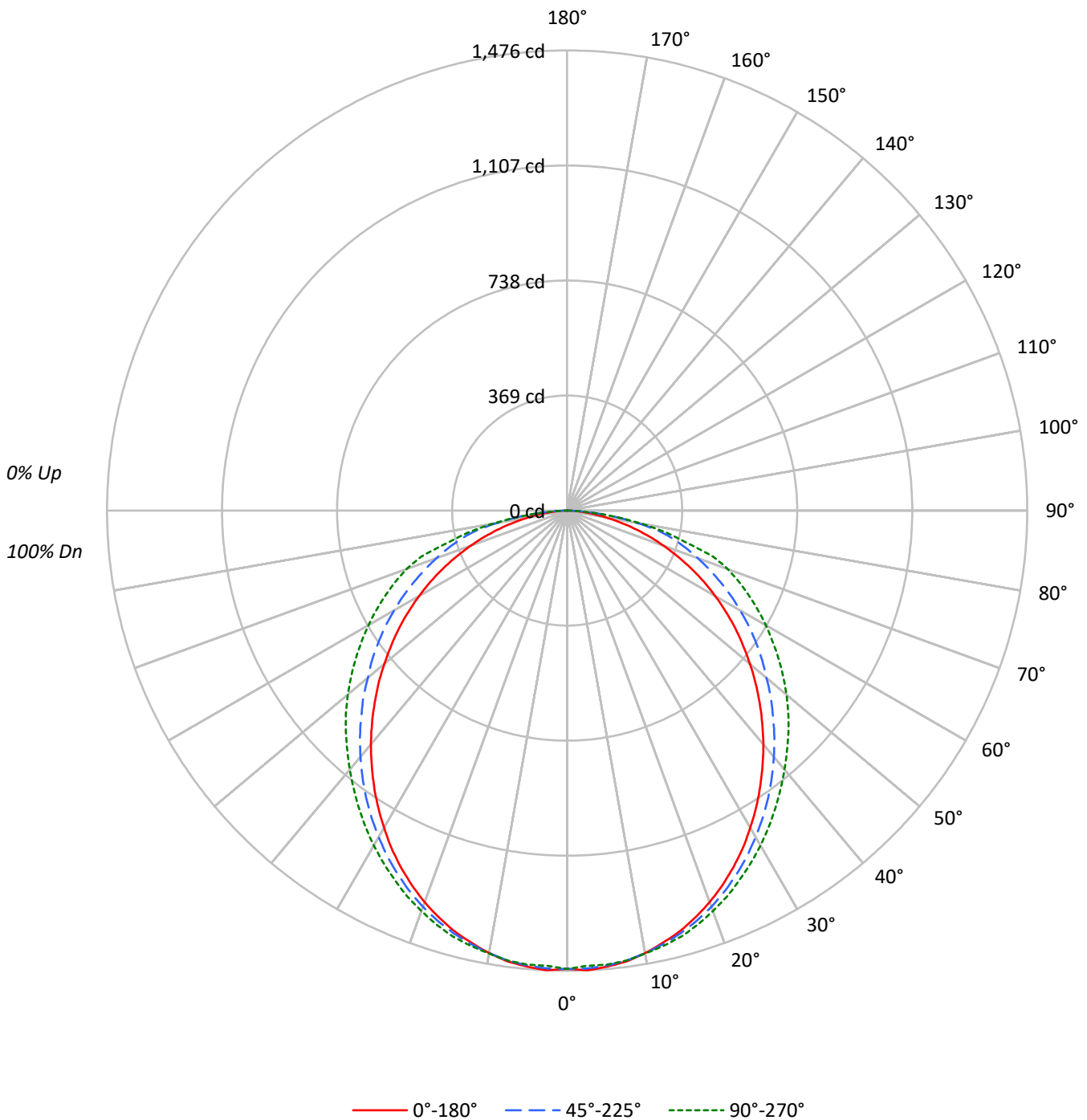
Input Watts (W): 32.754228
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1978	1978	1978
5°	1984	1978	1974
10°	1969	1969	1971
15°	1946	1956	1970
20°	1914	1937	1957
25°	1874	1910	1942
30°	1825	1879	1927
35°	1774	1847	1913
40°	1721	1811	1904
45°	1662	1777	1910
50°	1603	1747	1921
55°	1544	1736	1941
60°	1474	1725	1980
65°	1397	1726	2046
70°	1292	1755	2155
75°	1156	1834	2050
80°	967	1756	1878
85°	730	1351	1284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.9	3.3
10°-20°	395.4	9.4
20°-30°	591.1	14.1
30°-40°	701.2	16.7
40°-50°	721.7	17.2
50°-60°	662.1	15.8
60°-70°	535.3	12.8
70°-80°	347.4	8.3
80°-90°	95.8	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°	1125.4	26.9
0°-40°	1826.6	43.6
0°-60°	3210.4	76.6
0°-90°	4189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4189.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1470	1470	1470	1470	1470	
5°	1469	1459	1464	1463	1462	139
15°	1397	1391	1404	1410	1414	394
25°	1262	1264	1286	1298	1308	581
35°	1080	1089	1124	1149	1165	675
45°	874	888	934	978	1004	674
55°	658	678	740	800	828	588
65°	439	465	542	614	642	434
75°	222	264	353	394	394	236
85°	47	80	88	85	83	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1470.1	1470.1	1470.1	1470.1	1470.1
2.5°	1475.9	1464.4	1470.1	1468.7	1461.5
5°	1468.7	1458.6	1464.4	1462.9	1461.5
7.5°	1458.6	1448.6	1455.8	1454.3	1455.8
10°	1441.4	1432.8	1441.4	1442.9	1442.9
12.5°	1419.9	1412.7	1424.2	1427.1	1430.0
15°	1397.0	1391.2	1404.1	1409.9	1414.2
17.5°	1368.3	1364.0	1379.8	1386.9	1392.7
20°	1336.7	1335.3	1352.5	1359.7	1366.9
22.5°	1300.9	1300.9	1321.0	1329.6	1339.6
25°	1262.1	1263.6	1286.5	1298.0	1308.0
27.5°	1220.6	1222.0	1249.2	1263.6	1275.1
30°	1174.7	1180.4	1209.1	1227.7	1240.6
32.5°	1128.8	1135.9	1167.5	1189.0	1203.3
35°	1080.0	1088.6	1124.5	1148.8	1164.6
37.5°	1029.8	1039.8	1078.6	1105.8	1124.5
40°	979.6	991.1	1031.2	1062.8	1084.3
42.5°	926.5	939.4	983.9	1021.2	1044.1
45°	873.5	887.8	933.7	978.2	1004.0
47.5°	820.4	837.6	886.4	935.1	962.4
50°	765.9	783.1	834.7	890.7	917.9
52.5°	711.4	731.5	788.8	846.2	873.5
55°	658.3	678.4	740.1	800.3	827.6
57.5°	603.8	623.9	691.3	754.4	781.7
60°	547.9	570.8	641.1	705.7	735.8
62.5°	493.4	517.8	592.3	661.2	689.9
65°	438.9	464.7	542.2	613.9	642.5
67.5°	382.9	413.1	493.4	566.5	596.7
70°	328.4	361.4	446.1	519.2	547.9
72.5°	275.4	311.2	398.7	473.3	490.5
75°	222.3	263.9	352.8	394.4	394.4
77.5°	172.1	218.0	301.2	317.0	325.6
80°	124.8	175.0	226.6	245.3	242.4
82.5°	83.2	133.4	162.1	162.1	157.8
85°	47.3	80.3	87.5	84.6	83.2
87.5°	20.1	30.1	27.3	21.5	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)