

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: P260693

Luminaire Tested: **24CZ-LD5-45SE-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260693
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-LD5-45SE-UNV-L93050-W2A1-U-3500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3852.2 lumens
Efficiency: N/A
Efficacy: 108.1 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

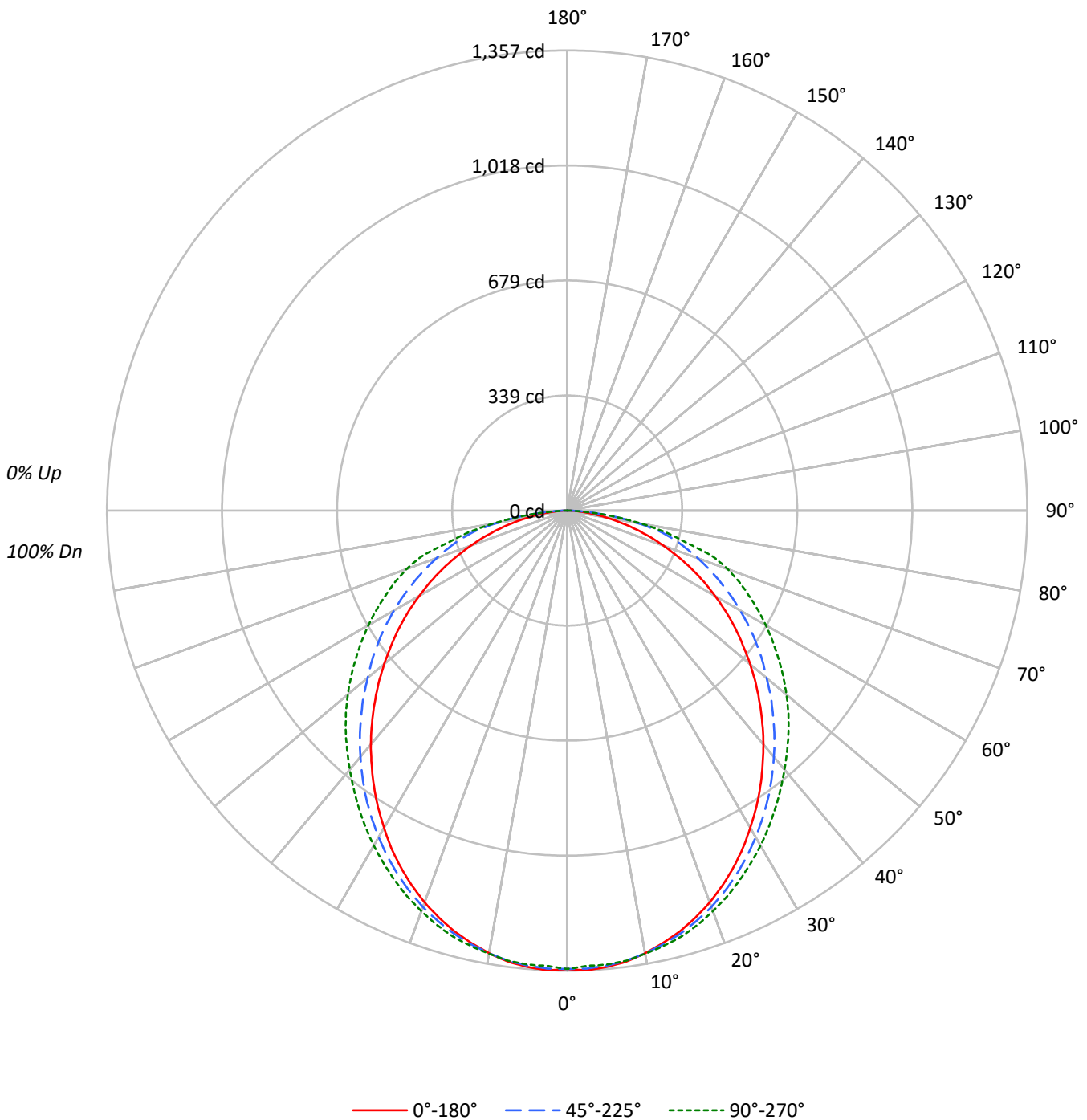
Input Watts (W): 35.632392
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1819	1819	1819
5°	1824	1819	1815
10°	1811	1811	1813
15°	1790	1799	1812
20°	1760	1781	1800
25°	1723	1756	1786
30°	1678	1727	1773
35°	1631	1699	1759
40°	1582	1666	1751
45°	1528	1634	1757
50°	1474	1607	1767
55°	1420	1597	1785
60°	1356	1587	1821
65°	1285	1587	1881
70°	1188	1614	1982
75°	1063	1687	1886
80°	889	1615	1727
85°	672	1243	1181



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.8	3.3
10°-20°	363.6	9.4
20°-30°	543.6	14.1
30°-40°	644.8	16.7
40°-50°	663.7	17.2
50°-60°	608.9	15.8
60°-70°	492.3	12.8
70°-80°	319.5	8.3
80°-90°	88.1	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°	1034.9	26.9
0°-40°	1679.7	43.6
0°-60°	2952.3	76.6
0°-90°	3852.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3852.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1351	1341	1347	1345	1344	128
15°	1285	1279	1291	1296	1300	362
25°	1161	1162	1183	1194	1203	534
35°	993	1001	1034	1056	1071	621
45°	803	816	859	900	923	620
55°	605	624	681	736	761	541
65°	404	427	499	564	591	399
75°	204	243	324	363	363	217
85°	44	74	80	78	76	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1351.9	1351.9	1351.9	1351.9	1351.9
2.5°	1357.2	1346.6	1351.9	1350.6	1344.0
5°	1350.6	1341.4	1346.6	1345.3	1344.0
7.5°	1341.4	1332.1	1338.7	1337.4	1338.7
10°	1325.5	1317.6	1325.5	1326.9	1326.9
12.5°	1305.8	1299.2	1309.7	1312.4	1315.0
15°	1284.7	1279.4	1291.3	1296.5	1300.5
17.5°	1258.3	1254.3	1268.8	1275.4	1280.7
20°	1229.3	1227.9	1243.8	1250.4	1257.0
22.5°	1196.3	1196.3	1214.8	1222.7	1231.9
25°	1160.7	1162.0	1183.1	1193.6	1202.9
27.5°	1122.4	1123.7	1148.8	1162.0	1172.5
30°	1080.2	1085.5	1111.9	1129.0	1140.9
32.5°	1038.0	1044.6	1073.6	1093.4	1106.6
35°	993.2	1001.1	1034.1	1056.5	1071.0
37.5°	947.0	956.2	991.8	1016.9	1034.1
40°	900.8	911.4	948.3	977.3	997.1
42.5°	852.0	863.9	904.8	939.1	960.2
45°	803.2	816.4	858.6	899.5	923.3
47.5°	754.4	770.3	815.1	860.0	885.0
50°	704.3	720.1	767.6	819.1	844.1
52.5°	654.2	672.7	725.4	778.2	803.2
55°	605.4	623.9	680.6	736.0	761.0
57.5°	555.3	573.7	635.7	693.8	718.8
60°	503.8	524.9	589.6	648.9	676.6
62.5°	453.7	476.1	544.7	608.0	634.4
65°	403.6	427.3	498.6	564.5	590.9
67.5°	352.2	379.9	453.7	521.0	548.7
70°	302.0	332.4	410.2	477.5	503.8
72.5°	253.2	286.2	366.7	435.3	451.1
75°	204.4	242.7	324.5	362.7	362.7
77.5°	158.3	200.5	277.0	291.5	299.4
80°	114.7	160.9	208.4	225.5	222.9
82.5°	76.5	122.7	149.0	149.0	145.1
85°	43.5	73.9	80.5	77.8	76.5
87.5°	18.5	27.7	25.1	19.8	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)