

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: P388848

Luminaire Tested: **24CZ2-55HE-SQR-UNV-L930-CD1-SDWPD1-U**

Issue Date: 2/28/2020

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: P388848
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55HE-SQR-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4301.6 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

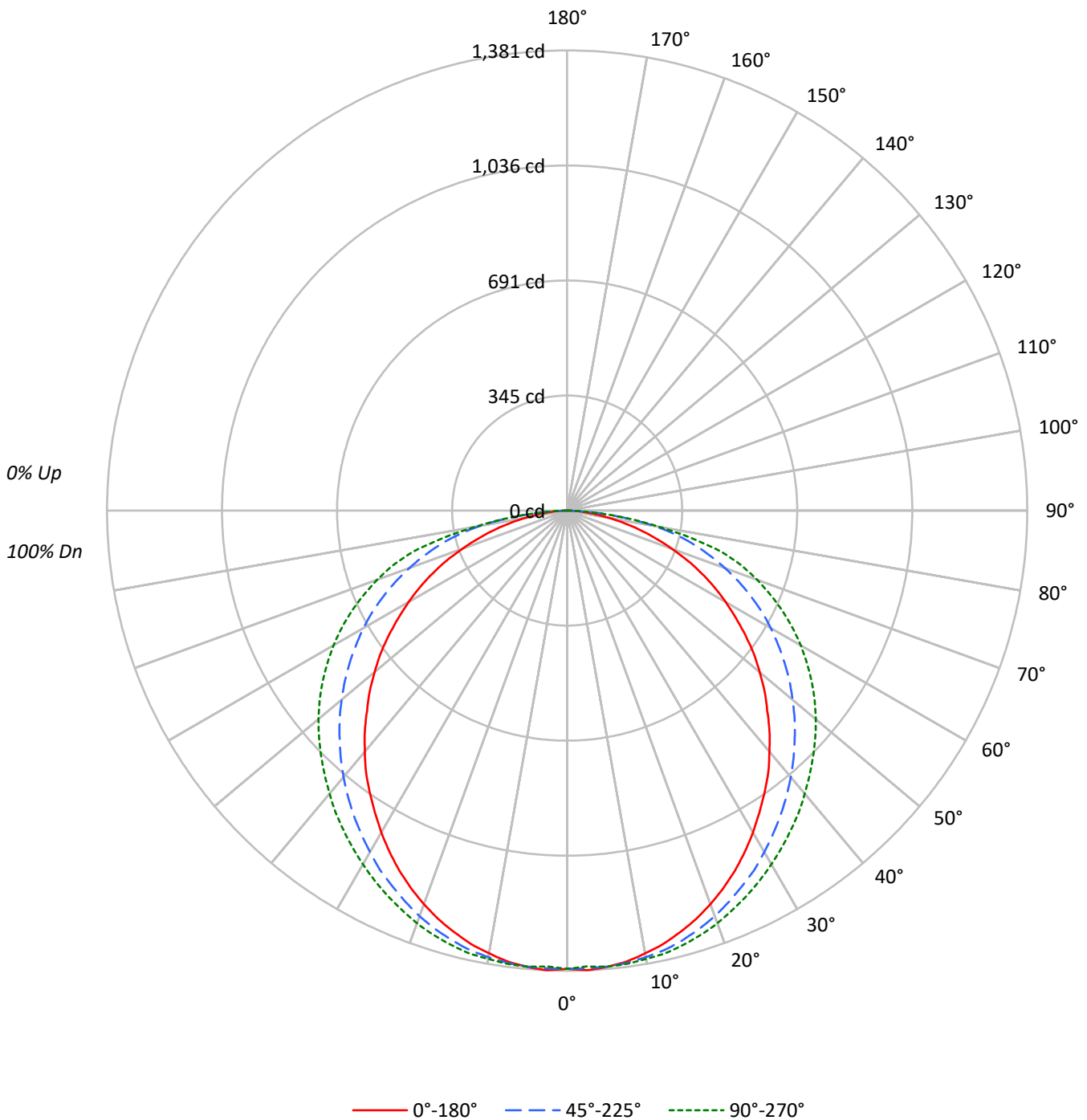
Input Watts (W): 43.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1850	1850	1850
5°	1857	1855	1855
10°	1844	1859	1867
15°	1824	1860	1880
20°	1800	1855	1887
25°	1769	1845	1894
30°	1732	1838	1905
35°	1696	1834	1923
40°	1659	1834	1949
45°	1616	1838	1987
50°	1579	1849	2040
55°	1533	1869	2103
60°	1479	1900	2179
65°	1415	1936	2270
70°	1313	1984	2386
75°	1189	2053	2496
80°	1002	2058	2146
85°	767	1558	1558



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.5	3.0
10°-20°	375.5	8.7
20°-30°	570.4	13.3
30°-40°	693.8	16.1
40°-50°	738.7	17.2
50°-60°	703.6	16.4
60°-70°	588.4	13.7
70°-80°	392.3	9.1
80°-90°	108.5	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°	1076.4	25.0
0°-40°	1770.2	41.2
0°-60°	3212.4	74.7
0°-90°	4301.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4301.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1375	1366	1374	1374	1374	130
15°	1310	1312	1335	1345	1349	369
25°	1192	1207	1243	1264	1276	549
35°	1033	1062	1116	1153	1170	646
45°	849	895	966	1020	1044	657
55°	653	710	797	866	896	584
65°	445	510	608	683	713	439
75°	229	301	395	462	480	242
85°	50	92	101	99	101	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1375.0	1375.0	1375.0	1375.0	1375.0
2.5°	1380.7	1370.7	1375.0	1375.0	1369.3
5°	1375.0	1366.5	1373.6	1373.6	1373.6
7.5°	1365.1	1358.0	1369.3	1372.2	1372.2
10°	1349.4	1346.6	1360.8	1365.1	1366.5
12.5°	1332.4	1331.0	1350.9	1356.5	1360.8
15°	1309.7	1312.5	1335.2	1345.2	1349.4
17.5°	1285.5	1291.2	1316.8	1331.0	1335.2
20°	1257.1	1265.6	1295.5	1309.7	1318.2
22.5°	1225.9	1238.6	1269.9	1286.9	1296.9
25°	1191.8	1207.4	1242.9	1264.2	1275.6
27.5°	1154.8	1174.7	1215.9	1240.1	1251.4
30°	1115.1	1137.8	1183.2	1211.6	1225.9
32.5°	1073.9	1100.9	1150.6	1181.8	1198.9
35°	1032.7	1062.5	1116.5	1153.4	1170.5
37.5°	991.5	1021.3	1081.0	1120.7	1142.0
40°	944.6	980.1	1044.0	1088.1	1109.4
42.5°	899.1	937.5	1005.7	1054.0	1076.7
45°	849.4	894.9	965.9	1019.9	1044.0
47.5°	804.0	849.4	926.1	983.0	1009.9
50°	754.3	802.6	883.5	946.0	974.4
52.5°	706.0	755.7	840.9	907.7	936.1
55°	653.4	710.2	796.9	866.5	896.3
57.5°	600.9	661.9	751.4	823.9	853.7
60°	549.7	612.2	706.0	778.4	809.7
62.5°	498.6	561.1	659.1	733.0	762.8
65°	444.6	509.9	608.0	683.2	713.1
67.5°	390.6	458.8	556.8	632.1	660.5
70°	333.8	406.3	504.3	578.1	606.5
72.5°	281.3	353.7	450.3	522.7	549.7
75°	228.7	301.1	394.9	461.6	480.1
77.5°	177.6	250.0	333.8	377.8	382.1
80°	129.3	197.4	265.6	278.4	277.0
82.5°	86.6	147.7	183.2	184.7	188.9
85°	49.7	92.3	100.9	99.4	100.9
87.5°	19.9	32.7	28.4	21.3	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)