

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: P388855

Luminaire Tested: **24CZ2-55HE-SQR-UNV-L940-CD1-SWPD1-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: P388855
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-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4508.0 lumens
Efficiency: N/A
Efficacy: 103.6 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

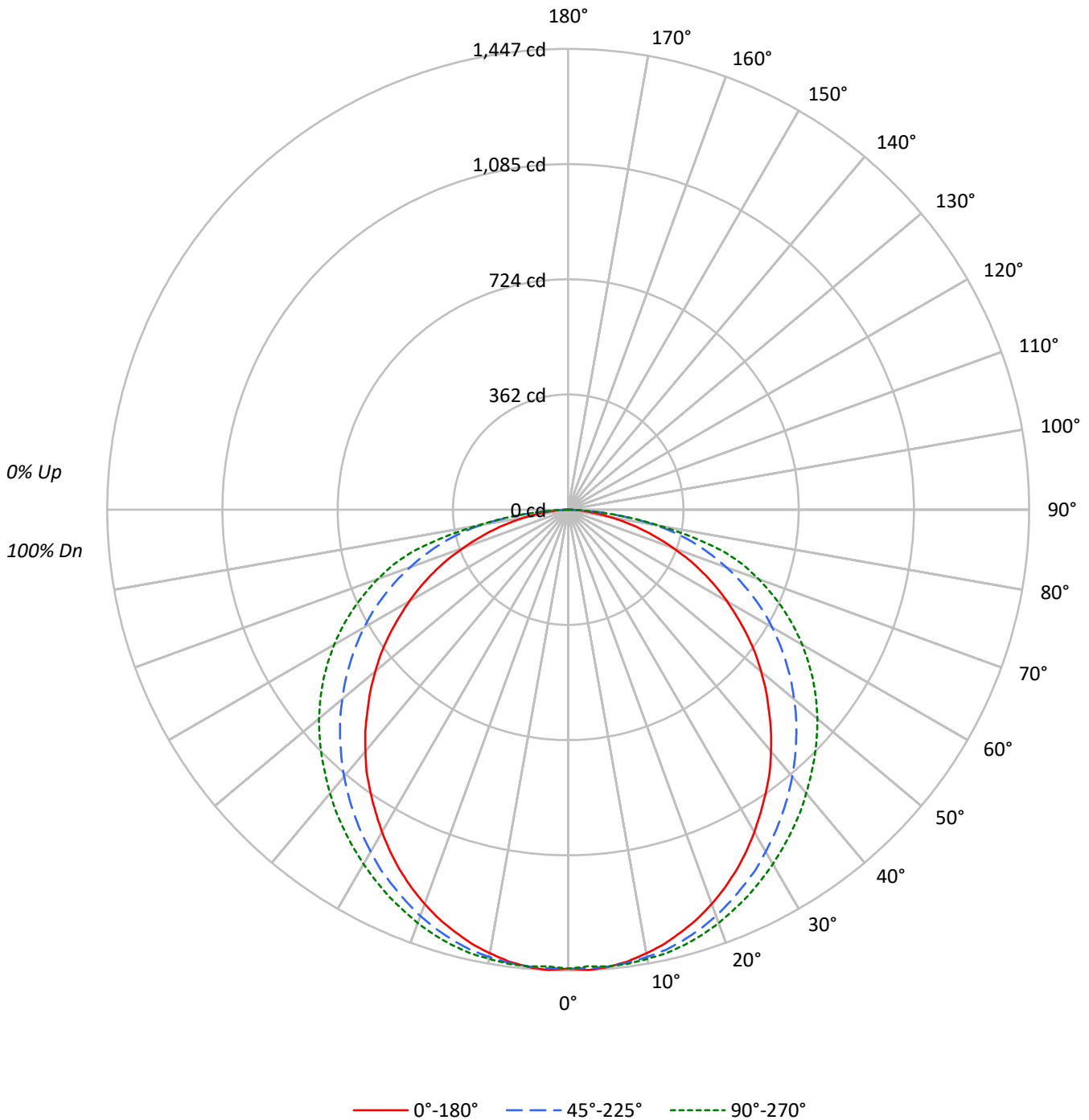
Input Watts (W): 43.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1939	1939	1939
5°	1946	1944	1944
10°	1932	1948	1956
15°	1912	1949	1970
20°	1886	1944	1978
25°	1854	1934	1985
30°	1816	1927	1996
35°	1778	1922	2015
40°	1739	1922	2042
45°	1694	1926	2082
50°	1655	1938	2138
55°	1606	1959	2203
60°	1550	1991	2283
65°	1483	2028	2379
70°	1376	2079	2500
75°	1246	2151	2616
80°	1050	2157	2249
85°	804	1632	1632



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.8	3.0
10°-20°	393.5	8.7
20°-30°	597.8	13.3
30°-40°	727.1	16.1
40°-50°	774.1	17.2
50°-60°	737.3	16.4
60°-70°	616.6	13.7
70°-80°	411.1	9.1
80°-90°	113.7	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°	1128.1	25.0
0°-40°	1855.2	41.2
0°-60°	3366.6	74.7
0°-90°	4508.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4508.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1441	1432	1440	1440	1440	137
15°	1372	1376	1399	1410	1414	387
25°	1249	1265	1302	1325	1337	575
35°	1082	1114	1170	1209	1227	677
45°	890	938	1012	1069	1094	688
55°	685	744	835	908	939	612
65°	466	534	637	716	747	460
75°	240	316	414	484	503	254
85°	52	97	106	104	106	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1441.0	1441.0	1441.0	1441.0	1441.0
2.5°	1446.9	1436.5	1441.0	1441.0	1435.0
5°	1441.0	1432.0	1439.5	1439.5	1439.5
7.5°	1430.6	1423.1	1435.0	1438.0	1438.0
10°	1414.2	1411.2	1426.1	1430.6	1432.0
12.5°	1396.3	1394.8	1415.7	1421.6	1426.1
15°	1372.5	1375.5	1399.3	1409.7	1414.2
17.5°	1347.2	1353.1	1379.9	1394.8	1399.3
20°	1317.4	1326.4	1357.6	1372.5	1381.4
22.5°	1284.7	1298.1	1330.8	1348.7	1359.1
25°	1248.9	1265.3	1302.5	1324.9	1336.8
27.5°	1210.2	1231.1	1274.3	1299.6	1311.5
30°	1168.6	1192.4	1240.0	1269.8	1284.7
32.5°	1125.4	1153.7	1205.8	1238.5	1256.4
35°	1082.2	1113.5	1170.0	1208.8	1226.6
37.5°	1039.1	1070.3	1132.8	1174.5	1196.8
40°	989.9	1027.1	1094.1	1140.3	1162.6
42.5°	942.3	982.5	1053.9	1104.5	1128.4
45°	890.2	937.8	1012.3	1068.8	1094.1
47.5°	842.6	890.2	970.6	1030.1	1058.4
50°	790.5	841.1	925.9	991.4	1021.2
52.5°	739.8	791.9	881.3	951.2	981.0
55°	684.8	744.3	835.1	908.1	939.3
57.5°	629.7	693.7	787.5	863.4	894.7
60°	576.1	641.6	739.8	815.8	848.5
62.5°	522.5	588.0	690.7	768.1	799.4
65°	465.9	534.4	637.1	716.0	747.3
67.5°	409.4	480.8	583.5	662.4	692.2
70°	349.8	425.7	528.5	605.9	635.6
72.5°	294.7	370.7	471.9	547.8	576.1
75°	239.7	315.6	413.8	483.8	503.2
77.5°	186.1	262.0	349.8	396.0	400.4
80°	135.5	206.9	278.4	291.8	290.3
82.5°	90.8	154.8	192.0	193.5	198.0
85°	52.1	96.8	105.7	104.2	105.7
87.5°	20.8	34.2	29.8	22.3	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)