

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: P388880

Luminaire Tested: **24CZ2-55VHE-SQR-UNV-L940-CD1-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: P388880
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: 24CZ2-55VHE-SQR-UNV-L940-CD1-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: 4569.5 lumens
Efficiency: N/A
Efficacy: 126.6 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

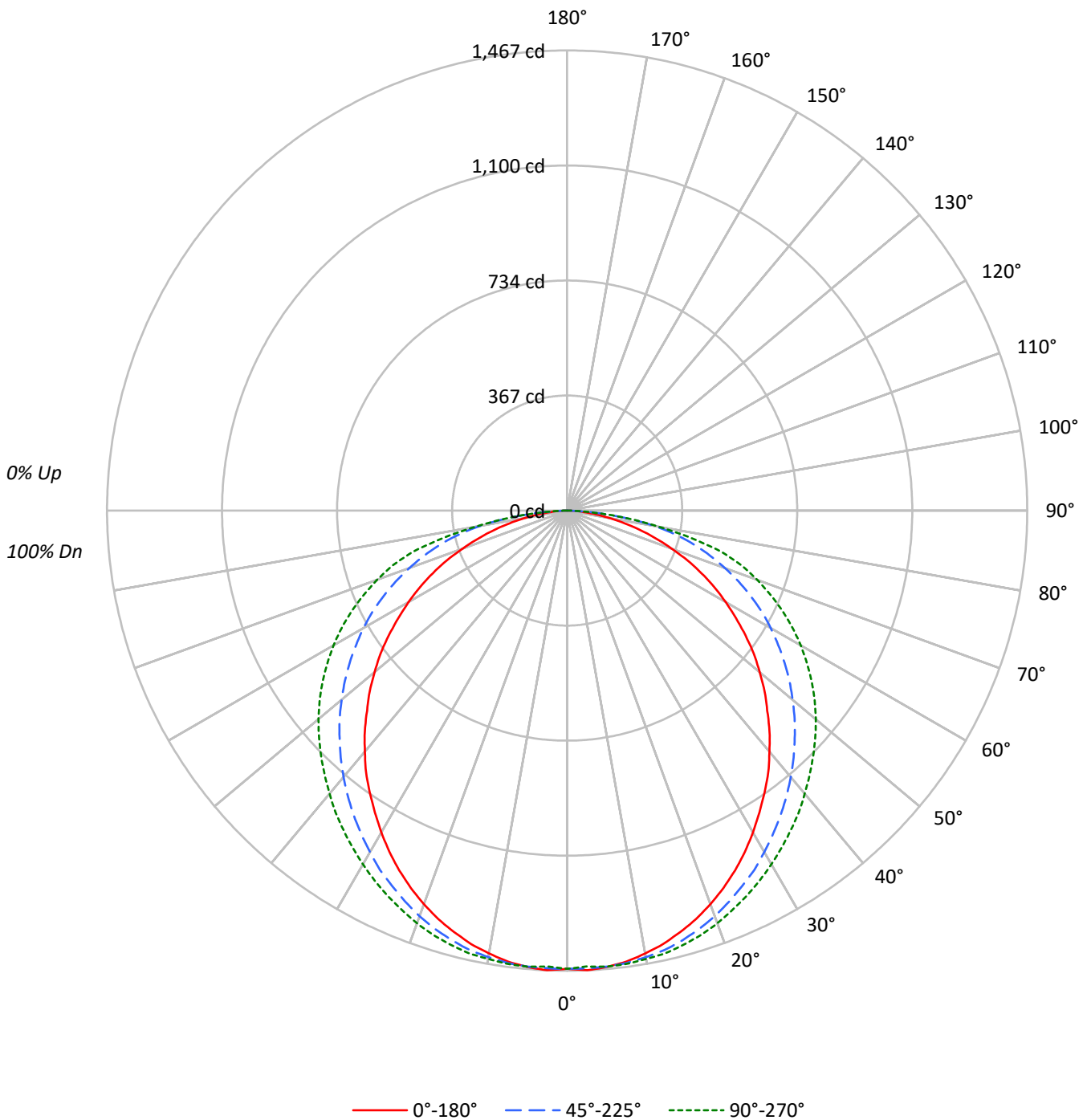
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1965	1965	1965
5°	1973	1971	1971
10°	1959	1975	1983
15°	1938	1976	1997
20°	1912	1970	2005
25°	1879	1960	2012
30°	1840	1953	2023
35°	1802	1948	2042
40°	1762	1948	2070
45°	1717	1952	2110
50°	1677	1964	2167
55°	1628	1986	2233
60°	1572	2018	2315
65°	1504	2056	2412
70°	1395	2107	2535
75°	1263	2181	2651
80°	1064	2187	2280
85°	815	1653	1653



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.6	3.0
10°-20°	398.9	8.7
20°-30°	605.9	13.3
30°-40°	737.0	16.1
40°-50°	784.7	17.2
50°-60°	747.4	16.4
60°-70°	625.0	13.7
70°-80°	416.7	9.1
80°-90°	115.3	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°	1143.5	25.0
0°-40°	1880.5	41.2
0°-60°	3412.5	74.7
0°-90°	4569.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4569.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1461	1461	1461	1461	1461	
5°	1461	1452	1459	1459	1459	139
15°	1391	1394	1418	1429	1434	392
25°	1266	1283	1320	1343	1355	583
35°	1097	1129	1186	1225	1243	686
45°	902	951	1026	1083	1109	698
55°	694	754	846	920	952	621
65°	472	542	646	726	758	467
75°	243	320	420	490	510	257
85°	53	98	107	106	107	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1460.6	1460.6	1460.6	1460.6	1460.6
2.5°	1466.7	1456.1	1460.6	1460.6	1454.6
5°	1460.6	1451.6	1459.1	1459.1	1459.1
7.5°	1450.1	1442.5	1454.6	1457.6	1457.6
10°	1433.5	1430.5	1445.5	1450.1	1451.6
12.5°	1415.4	1413.9	1435.0	1441.0	1445.5
15°	1391.2	1394.2	1418.4	1428.9	1433.5
17.5°	1365.6	1371.6	1398.8	1413.9	1418.4
20°	1335.4	1344.4	1376.1	1391.2	1400.3
22.5°	1302.2	1315.8	1349.0	1367.1	1377.6
25°	1266.0	1282.6	1320.3	1342.9	1355.0
27.5°	1226.8	1247.9	1291.6	1317.3	1329.4
30°	1184.5	1208.6	1256.9	1287.1	1302.2
32.5°	1140.7	1169.4	1222.2	1255.4	1273.5
35°	1097.0	1128.7	1186.0	1225.2	1243.4
37.5°	1053.2	1084.9	1148.3	1190.5	1213.2
40°	1003.4	1041.2	1109.1	1155.8	1178.5
42.5°	955.1	995.9	1068.3	1119.6	1143.8
45°	902.3	950.6	1026.1	1083.4	1109.1
47.5°	854.0	902.3	983.8	1044.2	1072.8
50°	801.2	852.5	938.5	1004.9	1035.1
52.5°	749.9	802.7	893.3	964.2	994.4
55°	694.1	754.5	846.5	920.4	952.1
57.5°	638.3	703.2	798.2	875.2	906.9
60°	584.0	650.3	749.9	826.9	860.1
62.5°	529.6	596.0	700.1	778.6	810.3
65°	472.3	541.7	645.8	725.8	757.5
67.5°	415.0	487.4	591.5	671.5	701.6
70°	354.6	431.6	535.7	614.1	644.3
72.5°	298.8	375.7	478.3	555.3	584.0
75°	242.9	319.9	419.5	490.4	510.0
77.5°	188.6	265.6	354.6	401.4	405.9
80°	137.3	209.7	282.2	295.7	294.2
82.5°	92.0	156.9	194.7	196.2	200.7
85°	52.8	98.1	107.1	105.6	107.1
87.5°	21.1	34.7	30.2	22.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)