

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: P391400

Luminaire Tested: **24CZ2-45VHE-RDP-UNV-L950-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: P391400
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45VHE-RDP-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2780.2 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

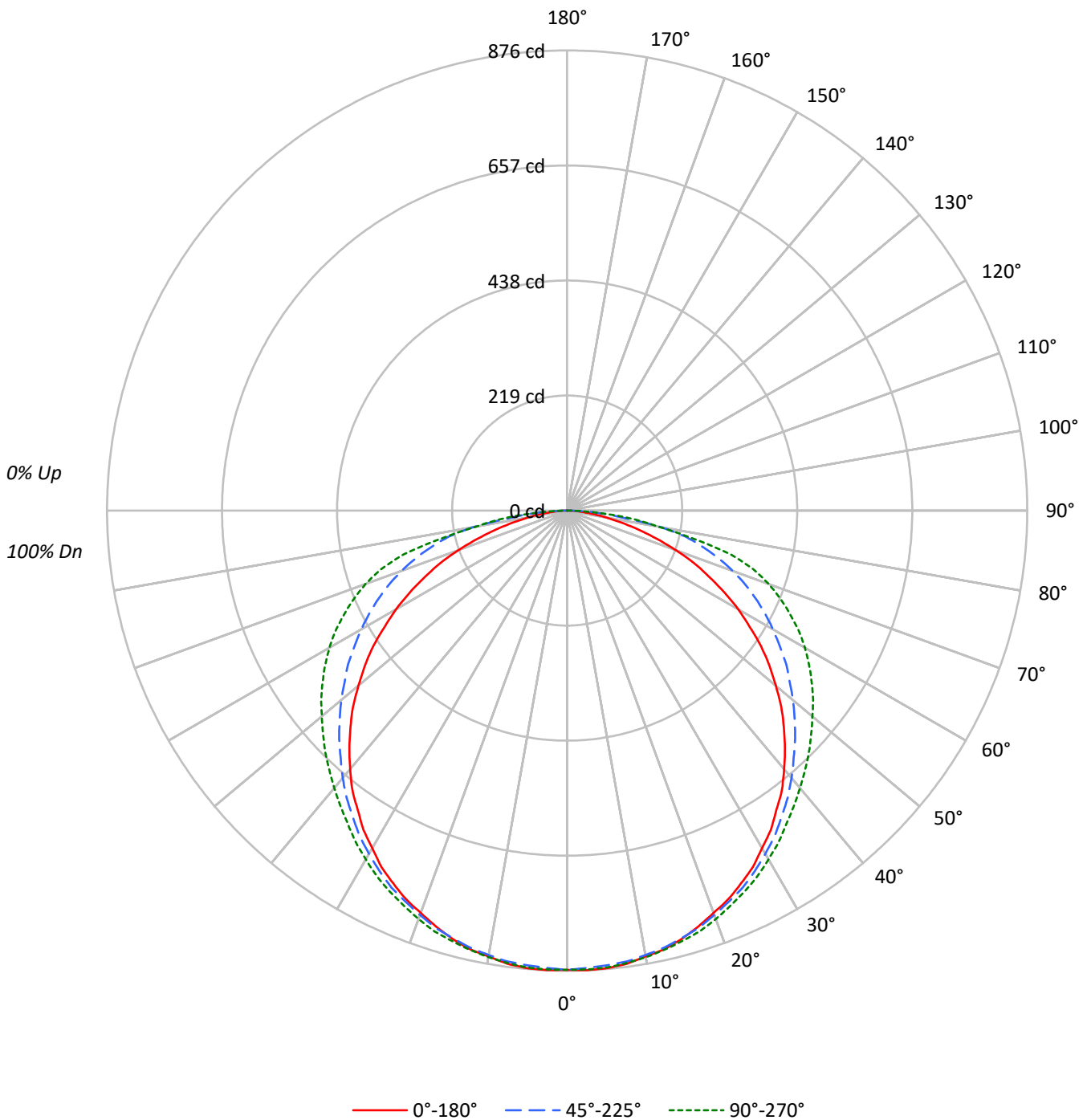
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1176	1176	1176
5°	1181	1173	1179
10°	1178	1174	1179
15°	1176	1174	1181
20°	1167	1173	1185
25°	1163	1175	1187
30°	1153	1172	1191
35°	1142	1169	1196
40°	1129	1167	1211
45°	1110	1168	1239
50°	1085	1175	1276
55°	1058	1194	1333
60°	1013	1217	1406
65°	948	1260	1493
70°	863	1318	1606
75°	731	1391	1678
80°	577	1400	1357
85°	426	1065	1192



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.9	3.0
10°-20°	238.7	8.6
20°-30°	365.0	13.1
30°-40°	446.2	16.0
40°-50°	475.6	17.1
50°-60°	454.7	16.4
60°-70°	385.2	13.9
70°-80°	258.9	9.3
80°-90°	73.0	2.6
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°	686.6	24.7
0°-40°	1132.8	40.7
0°-60°	2063.1	74.2
0°-90°	2780.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2780.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	874	874	874	874	874	
5°	874	873	869	873	873	83
15°	844	844	843	850	848	238
25°	783	786	792	798	800	361
35°	695	700	712	725	728	435
45°	583	593	614	640	651	450
55°	451	468	509	549	568	402
65°	298	328	396	448	469	296
75°	141	192	268	313	323	151
85°	28	56	69	74	77	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	874.3	874.3	874.3	874.3	874.3
2.5°	875.7	875.7	871.5	874.3	874.3
5°	874.3	872.9	868.8	872.9	872.9
7.5°	870.2	868.8	866.0	870.2	868.8
10°	861.9	861.9	859.1	863.3	863.3
12.5°	855.0	853.6	852.2	857.7	856.4
15°	844.0	844.0	842.6	849.5	848.1
17.5°	830.2	831.5	832.9	838.4	839.8
20°	815.0	817.8	819.1	827.4	827.4
22.5°	801.2	802.6	805.3	813.6	813.6
25°	783.3	786.0	791.6	798.4	799.8
27.5°	765.4	766.7	773.6	783.3	784.7
30°	741.9	746.0	754.3	765.4	766.7
32.5°	721.2	725.4	735.0	746.0	748.8
35°	695.0	700.5	711.6	725.4	728.1
37.5°	671.6	675.7	689.5	704.7	708.8
40°	642.6	650.9	664.7	682.6	689.5
42.5°	613.7	621.9	638.5	661.9	670.2
45°	583.3	593.0	613.7	639.9	650.9
47.5°	553.0	564.0	587.5	617.8	630.2
50°	518.5	532.3	561.3	595.7	609.5
52.5°	485.4	502.0	533.7	572.3	590.2
55°	450.9	467.5	508.9	548.8	568.2
57.5°	412.3	434.4	479.9	525.4	546.1
60°	376.5	397.2	452.3	502.0	522.6
62.5°	337.9	365.4	424.7	477.1	497.8
65°	297.9	328.2	395.8	448.2	468.9
67.5°	262.0	295.1	366.8	419.2	439.9
70°	219.3	260.6	335.1	387.5	408.2
72.5°	179.3	224.8	302.0	353.0	372.3
75°	140.7	191.7	267.5	313.0	322.7
77.5°	104.8	158.6	231.7	251.0	244.1
80°	74.5	126.9	180.7	171.0	175.1
82.5°	48.3	96.5	111.7	126.9	131.0
85°	27.6	56.5	69.0	74.5	77.2
87.5°	12.4	20.7	27.6	27.6	26.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)