

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: P230514

Luminaire Tested: **24CZ-LD5-45SE-RDP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230514
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25696)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-45SE-RDP-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RDP LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2656.4 lumens
Efficiency: N/A
Efficacy: 66.6 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

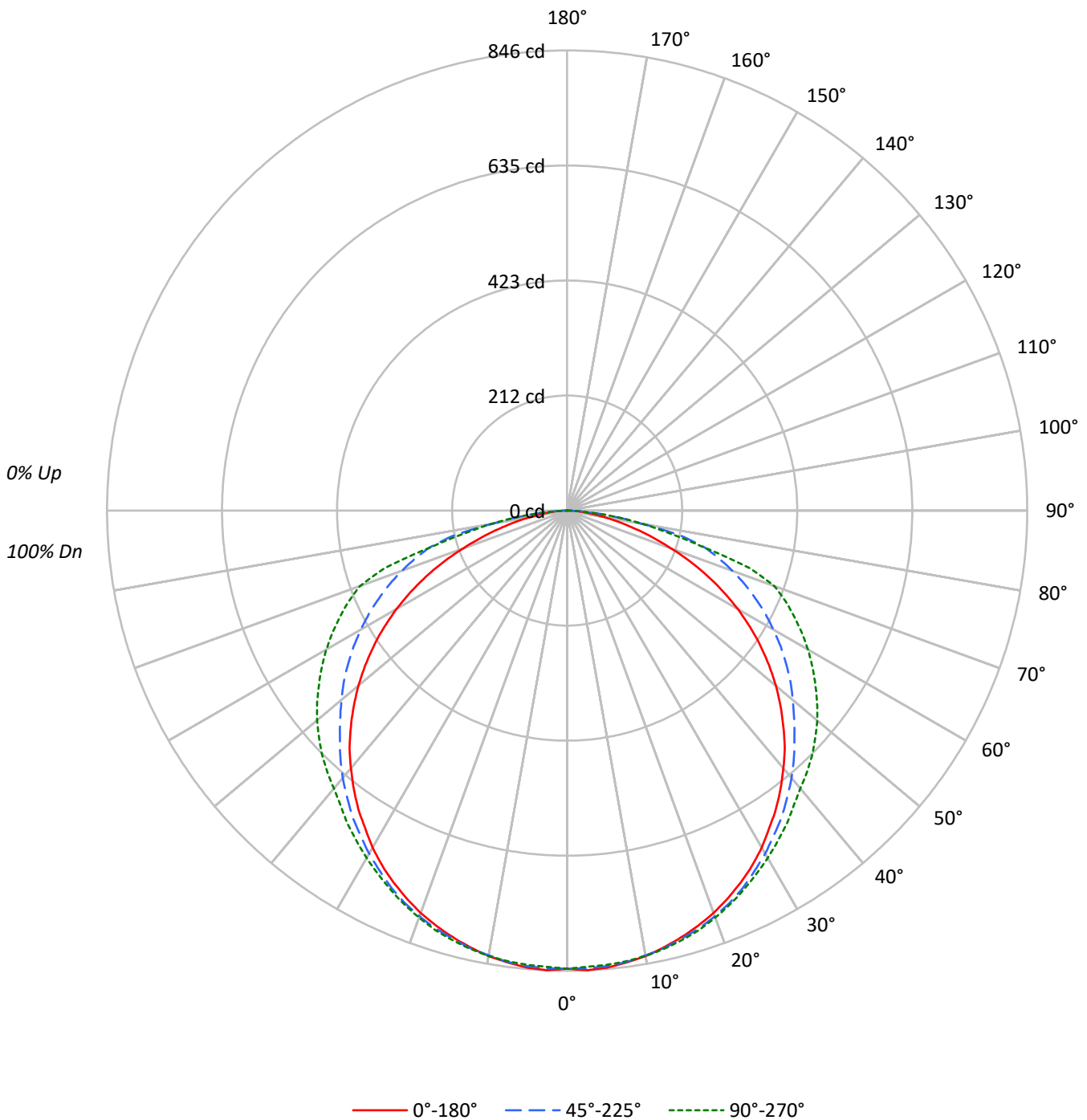
Input Watts (W): 39.91
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	97	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	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	56	50	60	54	50	47
5	74	61	51	45	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	61	48	40	34	47	39	34	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	27
9	55	41	33	27	53	41	32	27	39	32	27	38	32	27	37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1133	1133	1133
5°	1139	1136	1132
10°	1136	1134	1136
15°	1131	1135	1138
20°	1127	1136	1140
25°	1120	1136	1141
30°	1111	1132	1146
35°	1100	1130	1156
40°	1086	1128	1171
45°	1070	1125	1212
50°	1048	1133	1256
55°	1018	1153	1307
60°	975	1179	1376
65°	908	1216	1465
70°	803	1271	1595
75°	673	1359	1339
80°	537	1074	1114
85°	425	727	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.9	3.0
10°-20°	229.9	8.7
20°-30°	351.1	13.2
30°-40°	429.2	16.2
40°-50°	459.4	17.3
50°-60°	440.7	16.6
60°-70°	372.1	14.0
70°-80°	237.8	9.0
80°-90°	56.2	2.1
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°	660.8	24.9
0°-40°	1090.1	41.0
0°-60°	1990.2	74.9
0°-90°	2656.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2656.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	843	838	841	840	838	80
15°	812	809	815	817	817	229
25°	754	753	765	768	769	348
35°	670	675	688	697	704	419
45°	562	571	591	618	637	434
55°	434	448	492	536	557	387
65°	285	312	382	435	460	281
75°	130	184	262	267	258	139
85°	28	46	47	46	43	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	842.1	842.1	842.1	842.1	842.1
2.5°	846.0	840.8	842.1	842.1	839.5
5°	843.4	838.2	840.8	839.5	838.2
7.5°	838.2	834.3	836.9	836.9	835.6
10°	831.6	827.7	830.3	831.6	831.6
12.5°	822.5	819.9	823.8	823.8	825.1
15°	812.0	809.4	814.6	817.3	817.3
17.5°	800.3	798.9	805.5	806.8	808.1
20°	787.2	785.9	793.7	793.7	796.3
22.5°	771.5	770.2	780.6	780.6	783.3
25°	754.5	753.2	764.9	767.6	768.9
27.5°	736.2	734.9	746.6	750.6	753.2
30°	715.3	715.3	728.3	733.6	737.5
32.5°	691.7	695.6	707.4	715.3	720.5
35°	669.5	674.7	687.8	697.0	703.5
37.5°	644.6	649.9	664.3	676.0	683.9
40°	618.5	625.0	642.0	655.1	666.9
42.5°	592.3	598.9	617.2	636.8	652.5
45°	562.3	571.4	591.0	618.5	636.8
47.5°	532.2	541.3	566.2	600.2	618.5
50°	500.8	511.3	541.3	580.6	600.2
52.5°	468.1	479.9	517.8	559.7	579.3
55°	434.1	448.5	491.7	536.1	557.0
57.5°	398.8	414.5	465.5	512.6	534.8
60°	362.2	381.8	438.0	487.7	511.3
62.5°	324.3	347.8	410.6	461.6	486.4
65°	285.1	312.5	381.8	435.4	460.3
67.5°	244.5	281.1	353.1	409.3	434.1
70°	204.0	247.1	323.0	380.5	405.4
72.5°	166.1	215.8	292.9	346.5	351.7
75°	129.5	184.4	261.5	266.8	257.6
77.5°	96.8	153.0	215.8	192.2	190.9
80°	69.3	122.9	138.6	142.5	143.8
82.5°	45.8	92.8	90.2	92.8	91.5
85°	27.5	45.8	47.1	45.8	43.2
87.5°	13.1	17.0	13.1	11.8	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)