

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: P230403

Luminaire Tested: **24CZ-LD5-45-SQP-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230403
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-45-SQP-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2963.5 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

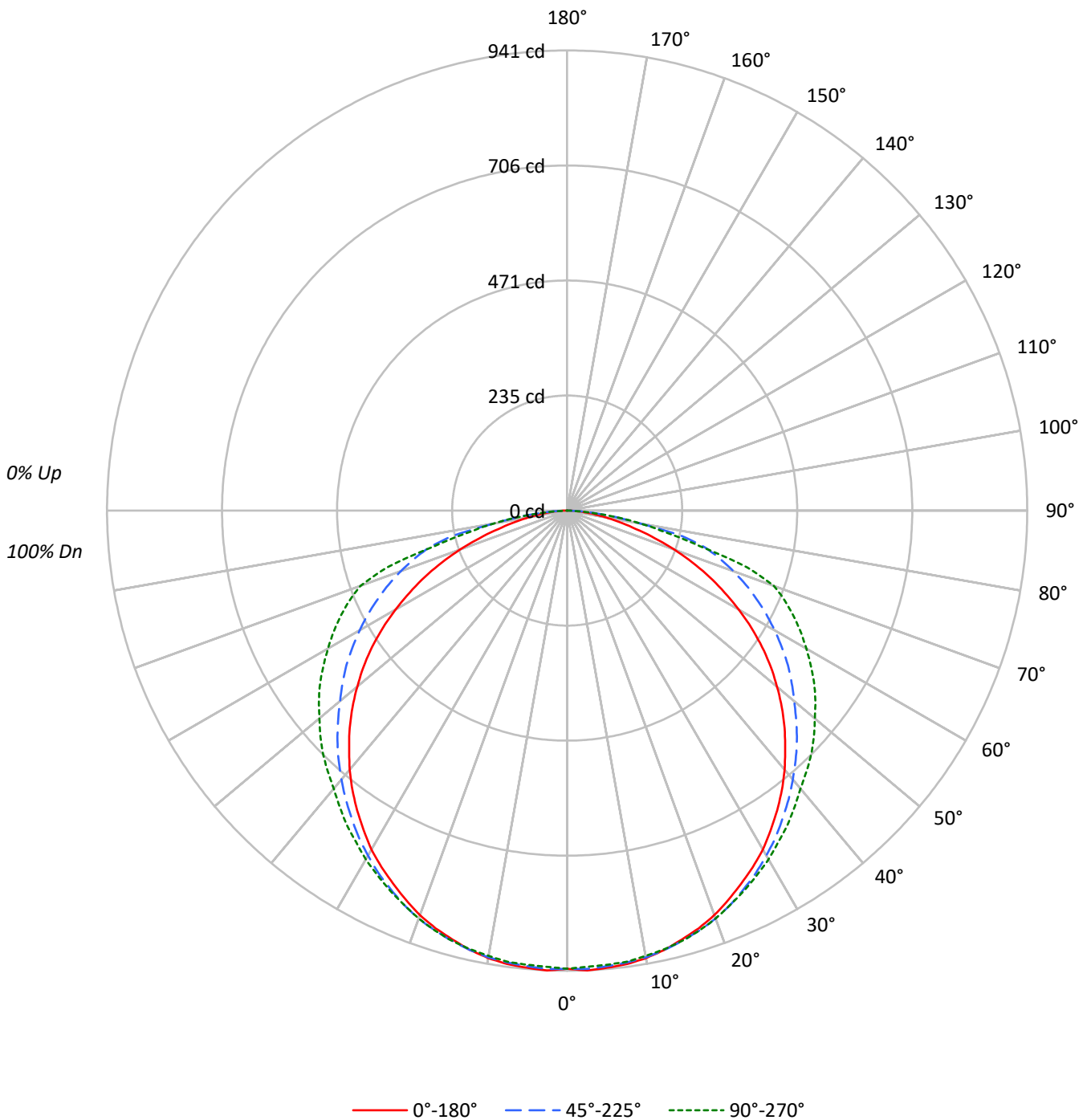
Input Watts (W): 35.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	62	73	66	60	70	64	59	67	63	58	56
4	81	68	59	52	79	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	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	29	28
9	55	41	33	27	54	41	33	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°	1260	1260	1260
5°	1267	1263	1259
10°	1270	1267	1263
15°	1264	1269	1269
20°	1260	1271	1271
25°	1250	1268	1273
30°	1244	1265	1280
35°	1229	1262	1290
40°	1215	1261	1304
45°	1197	1264	1343
50°	1173	1269	1384
55°	1142	1293	1447
60°	1092	1318	1520
65°	1024	1360	1628
70°	915	1421	1770
75°	756	1520	1464
80°	617	1174	1186
85°	496	780	733



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	3.0
10°-20°	256.7	8.7
20°-30°	392.4	13.2
30°-40°	479.9	16.2
40°-50°	513.5	17.3
50°-60°	491.7	16.6
60°-70°	416.0	14.0
70°-80°	263.7	8.9
80°-90°	60.7	2.0
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°	738.1	24.9
0°-40°	1218.0	41.1
0°-60°	2223.3	75.0
0°-90°	2963.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2963.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	937	937	937	937	937	
5°	938	934	935	934	932	89
15°	908	906	911	911	911	256
25°	842	842	854	857	857	388
35°	748	753	768	779	785	468
45°	629	640	664	692	706	485
55°	487	502	551	597	617	434
65°	322	352	427	485	511	317
75°	145	205	292	291	282	158
85°	32	49	50	46	48	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	936.8	936.8	936.8	936.8	936.8
2.5°	941.4	936.8	938.4	936.8	933.8
5°	938.4	933.8	935.3	933.8	932.2
7.5°	935.3	930.7	932.2	930.7	930.7
10°	929.2	924.6	927.6	926.1	924.6
12.5°	920.0	916.9	920.0	918.5	918.5
15°	907.7	906.2	910.8	910.8	910.8
17.5°	895.5	894.0	900.1	900.1	900.1
20°	880.2	878.7	887.8	887.8	887.8
22.5°	861.8	860.3	872.5	872.5	872.5
25°	841.9	841.9	854.2	857.2	857.2
27.5°	822.0	822.0	835.8	840.4	840.4
30°	800.6	800.6	814.4	820.5	823.6
32.5°	774.6	777.6	792.9	800.6	803.7
35°	748.5	753.1	768.4	779.2	785.3
37.5°	721.0	725.6	744.0	756.2	763.9
40°	691.9	698.0	717.9	733.2	742.4
42.5°	659.8	668.9	691.9	711.8	724.1
45°	629.1	639.9	664.4	691.9	705.7
47.5°	595.5	607.7	635.3	670.5	684.3
50°	560.3	572.5	606.2	646.0	661.3
52.5°	525.1	538.8	578.6	621.5	639.9
55°	486.8	502.1	551.1	597.0	616.9
57.5°	447.0	465.4	520.5	569.4	590.9
60°	405.7	428.6	489.8	541.9	564.9
62.5°	362.8	390.3	459.2	514.3	538.8
65°	321.5	352.1	427.1	485.3	511.3
67.5°	277.1	315.3	394.9	457.7	482.2
70°	232.7	277.1	361.3	425.6	450.0
72.5°	188.3	241.9	327.6	385.8	385.8
75°	145.4	205.1	292.4	290.8	281.7
77.5°	110.2	171.4	240.3	205.1	206.7
80°	79.6	137.8	151.5	151.5	153.1
82.5°	53.6	105.6	98.0	96.4	99.5
85°	32.1	49.0	50.5	45.9	47.5
87.5°	15.3	16.8	13.8	9.2	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)