

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: P230402

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230402
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-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2723.8 lumens
Efficiency: N/A
Efficacy: 76.3 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

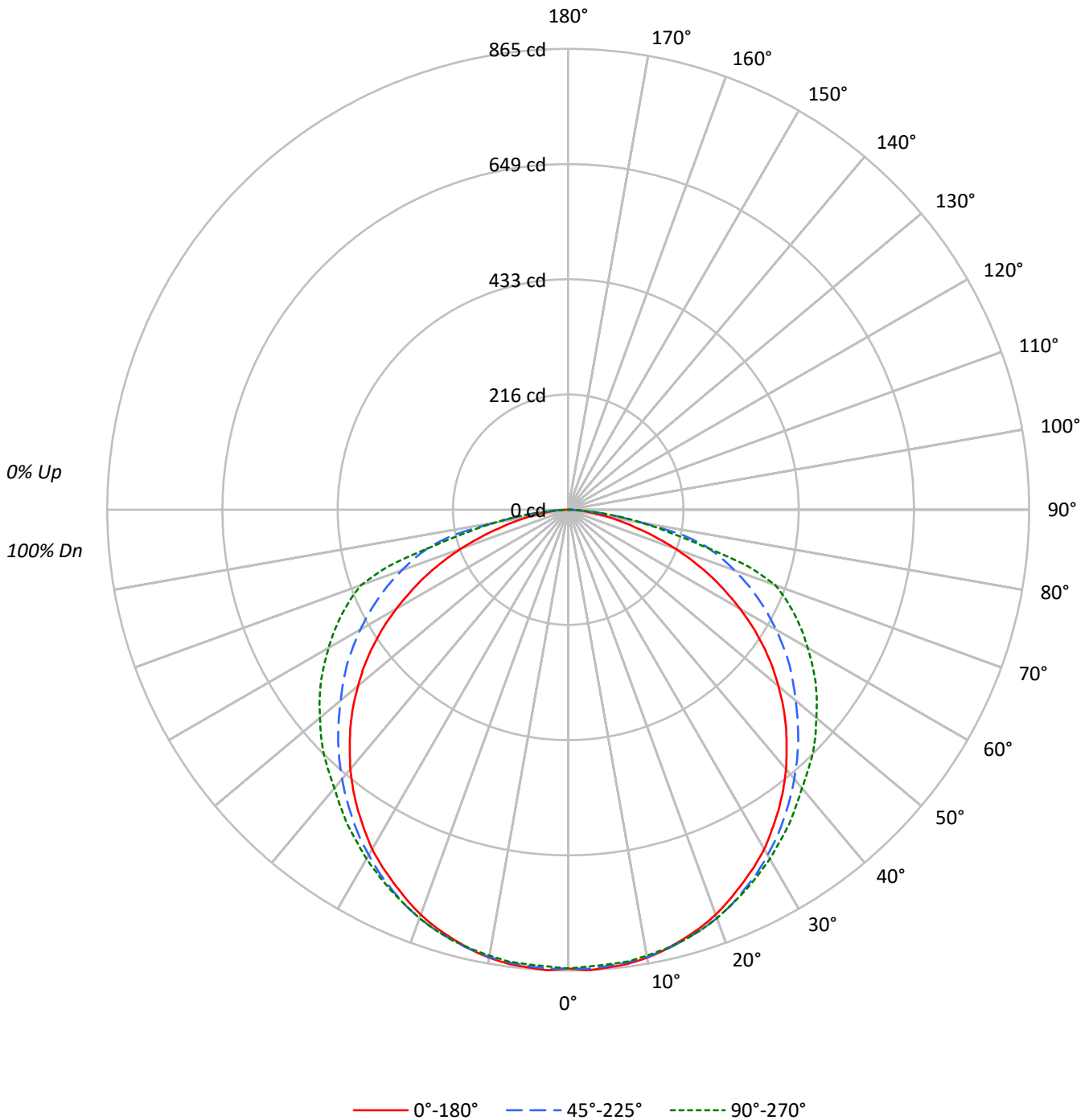
Input Watts (W): 35.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1159	1159	1159
5°	1165	1161	1157
10°	1167	1165	1161
15°	1162	1166	1166
20°	1158	1168	1168
25°	1149	1166	1170
30°	1143	1163	1176
35°	1130	1160	1186
40°	1117	1159	1199
45°	1100	1162	1234
50°	1078	1166	1272
55°	1050	1188	1330
60°	1003	1211	1397
65°	941	1250	1496
70°	841	1306	1627
75°	695	1397	1346
80°	567	1079	1090
85°	455	716	673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.8	3.0
10°-20°	236.0	8.7
20°-30°	360.7	13.2
30°-40°	441.1	16.2
40°-50°	472.0	17.3
50°-60°	451.9	16.6
60°-70°	382.3	14.0
70°-80°	242.3	8.9
80°-90°	55.7	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°	678.4	24.9
0°-40°	1119.5	41.1
0°-60°	2043.4	75.0
0°-90°	2723.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2723.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	861	861	861	861	861	
5°	862	858	860	858	857	82
15°	834	833	837	837	837	236
25°	774	774	785	788	788	357
35°	688	692	706	716	722	430
45°	578	588	611	636	649	445
55°	447	462	506	549	567	399
65°	296	324	392	446	470	291
75°	134	188	269	267	259	145
85°	30	45	46	42	44	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	861.1	861.1	861.1	861.1	861.1
2.5°	865.3	861.1	862.5	861.1	858.2
5°	862.5	858.2	859.6	858.2	856.8
7.5°	859.6	855.4	856.8	855.4	855.4
10°	854.0	849.8	852.6	851.2	849.8
12.5°	845.6	842.8	845.6	844.2	844.2
15°	834.3	832.9	837.1	837.1	837.1
17.5°	823.1	821.7	827.3	827.3	827.3
20°	809.0	807.6	816.0	816.0	816.0
22.5°	792.1	790.7	802.0	802.0	802.0
25°	773.8	773.8	785.1	787.9	787.9
27.5°	755.5	755.5	768.2	772.4	772.4
30°	735.8	735.8	748.5	754.1	756.9
32.5°	711.9	714.7	728.8	735.8	738.6
35°	688.0	692.2	706.3	716.1	721.8
37.5°	662.7	666.9	683.8	695.0	702.1
40°	635.9	641.6	659.9	673.9	682.4
42.5°	606.4	614.8	635.9	654.2	665.5
45°	578.3	588.1	610.6	635.9	648.6
47.5°	547.3	558.6	583.9	616.2	628.9
50°	514.9	526.2	557.2	593.7	607.8
52.5°	482.6	495.2	531.8	571.2	588.1
55°	447.4	461.5	506.5	548.7	567.0
57.5°	410.8	427.7	478.4	523.4	543.1
60°	372.8	393.9	450.2	498.1	519.2
62.5°	333.4	358.8	422.1	472.7	495.2
65°	295.5	323.6	392.5	446.0	469.9
67.5°	254.7	289.8	363.0	420.7	443.2
70°	213.9	254.7	332.0	391.1	413.6
72.5°	173.1	222.3	301.1	354.6	354.6
75°	133.7	188.5	268.7	267.3	258.9
77.5°	101.3	157.6	220.9	188.5	189.9
80°	73.2	126.6	139.3	139.3	140.7
82.5°	49.2	97.1	90.0	88.6	91.5
85°	29.5	45.0	46.4	42.2	43.6
87.5°	14.1	15.5	12.7	8.4	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)