

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: P230434

Luminaire Tested: **24CZ-LD5-35SE-SQP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230434
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-LD5-35SE-SQP-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2151.8 lumens
Efficiency: N/A
Efficacy: 75.3 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

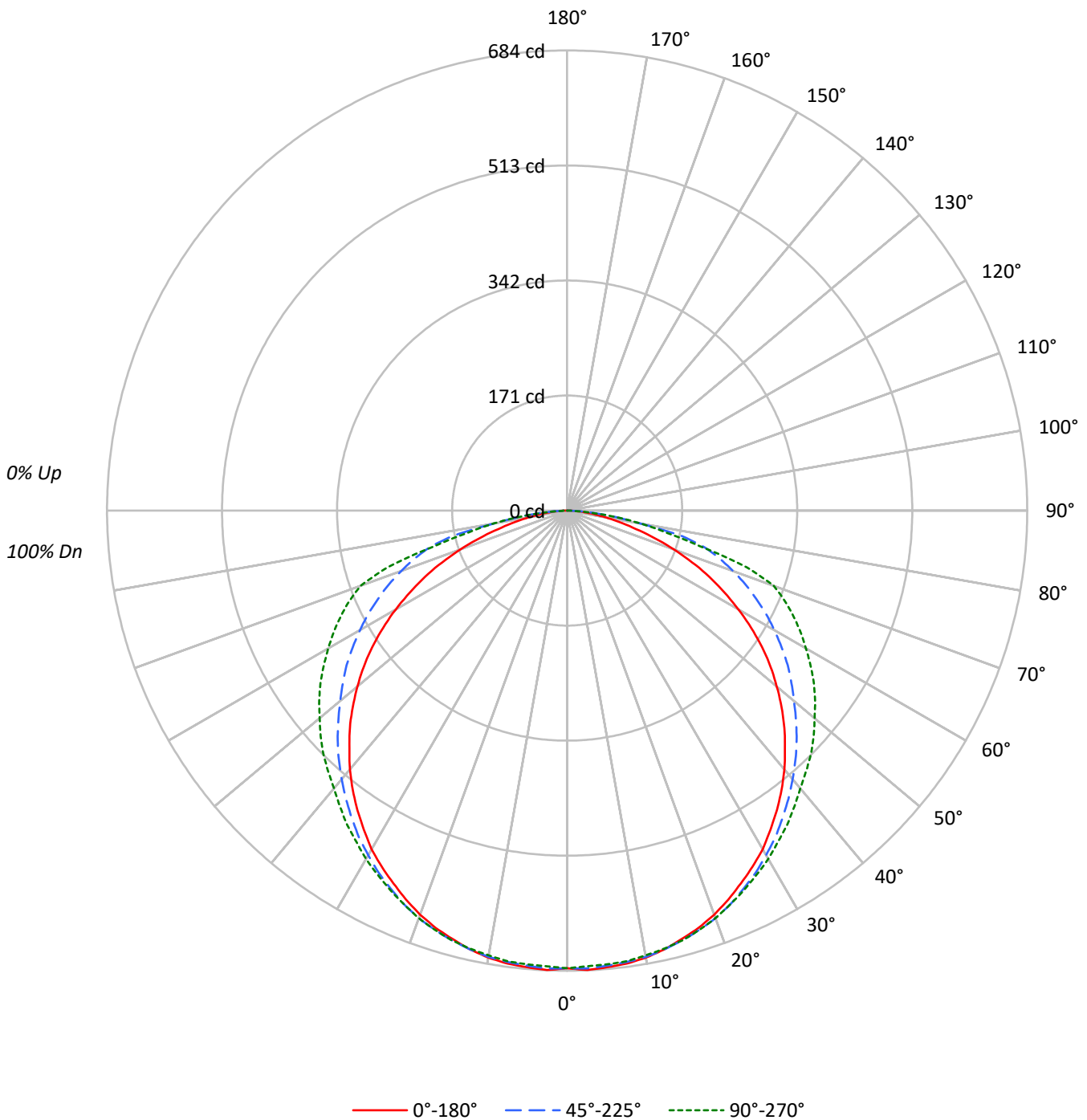
Input Watts (W): 28.57
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	915	915	915
5°	920	917	914
10°	922	920	917
15°	918	921	921
20°	915	923	923
25°	908	921	924
30°	903	919	929
35°	893	917	937
40°	882	916	947
45°	869	918	975
50°	852	921	1005
55°	829	939	1051
60°	792	957	1104
65°	743	987	1182
70°	664	1032	1286
75°	549	1104	1063
80°	448	852	861
85°	360	567	533



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	3.0
10°-20°	186.4	8.7
20°-30°	284.9	13.2
30°-40°	348.5	16.2
40°-50°	372.9	17.3
50°-60°	357.0	16.6
60°-70°	302.0	14.0
70°-80°	191.4	8.9
80°-90°	44.0	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°	535.9	24.9
0°-40°	884.4	41.1
0°-60°	1614.3	75.0
0°-90°	2151.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2151.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	681	678	679	678	677	65
15°	659	658	661	661	661	186
25°	611	611	620	622	622	282
35°	544	547	558	566	570	340
45°	457	465	482	502	512	352
55°	354	365	400	434	448	315
65°	233	256	310	352	371	230
75°	106	149	212	211	204	115
85°	23	36	37	33	34	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.2	680.2	680.2	680.2	680.2
2.5°	683.6	680.2	681.3	680.2	678.0
5°	681.3	678.0	679.1	678.0	676.9
7.5°	679.1	675.8	676.9	675.8	675.8
10°	674.7	671.3	673.6	672.5	671.3
12.5°	668.0	665.8	668.0	666.9	666.9
15°	659.1	658.0	661.3	661.3	661.3
17.5°	650.2	649.1	653.6	653.6	653.6
20°	639.1	638.0	644.7	644.7	644.7
22.5°	625.8	624.7	633.6	633.6	633.6
25°	611.3	611.3	620.2	622.4	622.4
27.5°	596.9	596.9	606.9	610.2	610.2
30°	581.3	581.3	591.3	595.8	598.0
32.5°	562.4	564.6	575.8	581.3	583.5
35°	543.5	546.9	558.0	565.8	570.2
37.5°	523.5	526.9	540.2	549.1	554.6
40°	502.4	506.8	521.3	532.4	539.1
42.5°	479.1	485.7	502.4	516.8	525.7
45°	456.8	464.6	482.4	502.4	512.4
47.5°	432.4	441.3	461.3	486.8	496.8
50°	406.8	415.7	440.2	469.1	480.2
52.5°	381.2	391.2	420.1	451.3	464.6
55°	353.5	364.6	400.1	433.5	447.9
57.5°	324.6	337.9	377.9	413.5	429.0
60°	294.5	311.2	355.7	393.5	410.1
62.5°	263.4	283.4	333.4	373.5	391.2
65°	233.4	255.6	310.1	352.3	371.2
67.5°	201.2	229.0	286.8	332.3	350.1
70°	168.9	201.2	262.3	309.0	326.8
72.5°	136.7	175.6	237.9	280.1	280.1
75°	105.6	148.9	212.3	211.2	204.5
77.5°	80.0	124.5	174.5	148.9	150.1
80°	57.8	100.0	110.0	110.0	111.1
82.5°	38.9	76.7	71.1	70.0	72.2
85°	23.3	35.6	36.7	33.3	34.5
87.5°	11.1	12.2	10.0	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)