

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: P230450

Luminaire Tested: **24CZ-LD5-55SE-SQP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230450  
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-LD5-55SE-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: 3377.3 lumens  
Efficiency: N/A  
Efficacy: 61.8 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

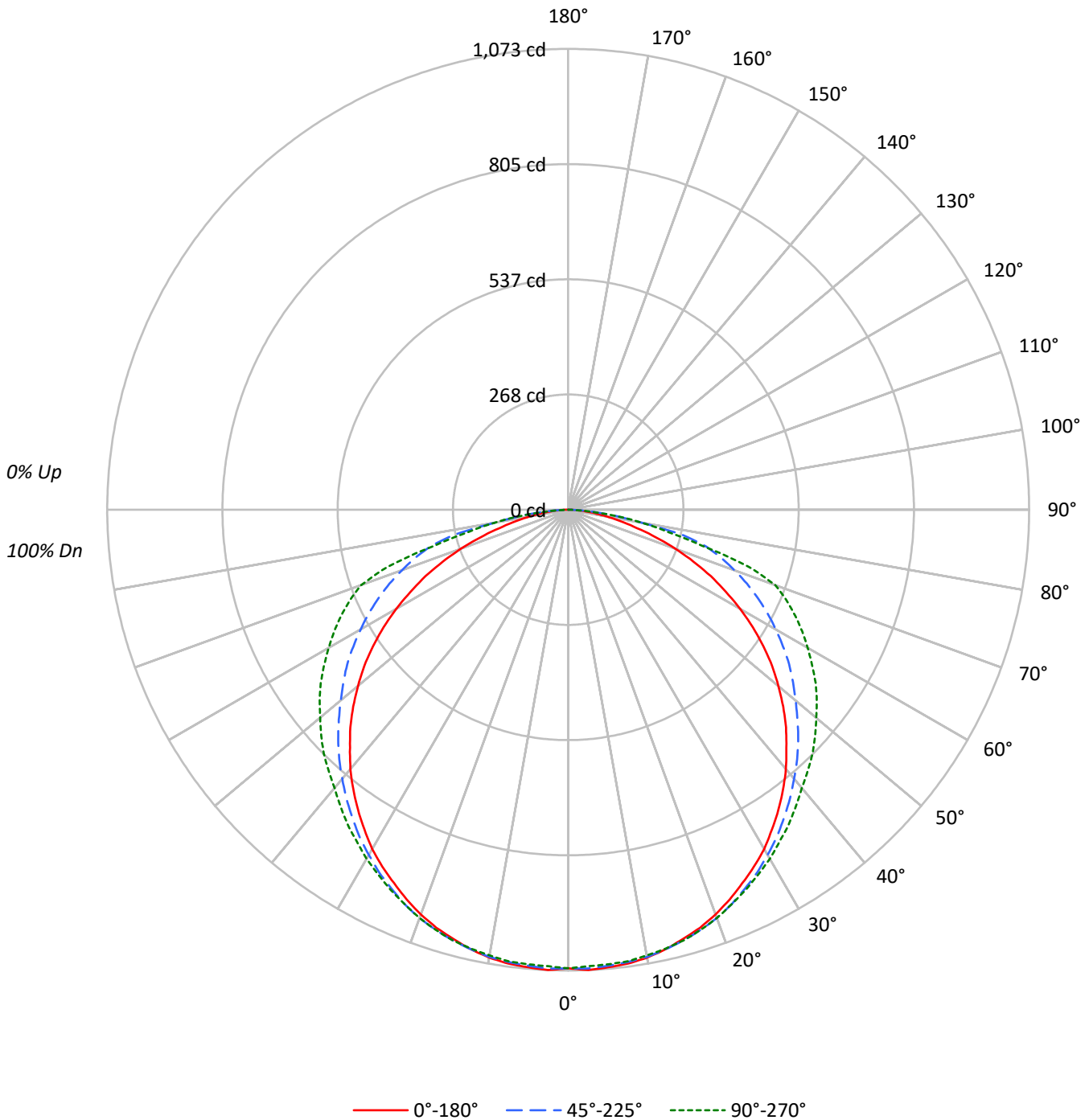
Input Watts (W): 54.69  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20			20			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°	1436	1436	1436
5°	1444	1440	1435
10°	1447	1444	1440
15°	1441	1446	1446
20°	1436	1449	1449
25°	1424	1445	1450
30°	1418	1442	1458
35°	1401	1438	1470
40°	1385	1437	1486
45°	1364	1441	1530
50°	1337	1446	1577
55°	1301	1473	1649
60°	1244	1502	1732
65°	1166	1550	1855
70°	1043	1620	2018
75°	861	1732	1669
80°	703	1338	1352
85°	565	889	835



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.4	3.0
10°-20°	292.6	8.7
20°-30°	447.2	13.2
30°-40°	546.9	16.2
40°-50°	585.2	17.3
50°-60°	560.4	16.6
60°-70°	474.0	14.0
70°-80°	300.5	8.9
80°-90°	69.1	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°	841.2	24.9
0°-40°	1388.1	41.1
0°-60°	2533.7	75.0
0°-90°	3377.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3377.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1069	1064	1066	1064	1062	102
15°	1034	1033	1038	1038	1038	292
25°	960	960	973	977	977	443
35°	853	858	876	888	895	534
45°	717	729	757	788	804	552
55°	555	572	628	680	703	495
65°	366	401	487	553	583	361
75°	166	234	333	332	321	180
85°	37	56	58	52	54	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1067.6	1067.6	1067.6	1067.6	1067.6
2.5°	1072.9	1067.6	1069.4	1067.6	1064.1
5°	1069.4	1064.1	1065.9	1064.1	1062.4
7.5°	1065.9	1060.7	1062.4	1060.7	1060.7
10°	1058.9	1053.7	1057.2	1055.4	1053.7
12.5°	1048.4	1045.0	1048.4	1046.7	1046.7
15°	1034.5	1032.7	1038.0	1038.0	1038.0
17.5°	1020.5	1018.8	1025.8	1025.8	1025.8
20°	1003.1	1001.3	1011.8	1011.8	1011.8
22.5°	982.2	980.4	994.4	994.4	994.4
25°	959.5	959.5	973.4	976.9	976.9
27.5°	936.8	936.8	952.5	957.7	957.7
30°	912.4	912.4	928.1	935.1	938.5
32.5°	882.7	886.2	903.7	912.4	915.9
35°	853.1	858.3	875.7	888.0	894.9
37.5°	821.7	826.9	847.8	861.8	870.5
40°	788.5	795.5	818.2	835.6	846.1
42.5°	751.9	762.3	788.5	811.2	825.1
45°	717.0	729.2	757.1	788.5	804.2
47.5°	678.6	692.6	724.0	764.1	779.8
50°	638.5	652.4	690.8	736.2	753.6
52.5°	598.4	614.1	659.4	708.3	729.2
55°	554.8	572.2	628.0	680.4	703.0
57.5°	509.4	530.3	593.1	649.0	673.4
60°	462.3	488.5	558.2	617.6	643.7
62.5°	413.4	444.8	523.4	586.2	614.1
65°	366.3	401.2	486.7	553.0	582.7
67.5°	315.8	359.4	450.1	521.6	549.5
70°	265.2	315.8	411.7	485.0	512.9
72.5°	214.6	275.6	373.3	439.6	439.6
75°	165.7	233.8	333.2	331.5	321.0
77.5°	125.6	195.4	273.9	233.8	235.5
80°	90.7	157.0	172.7	172.7	174.5
82.5°	61.1	120.4	111.6	109.9	113.4
85°	36.6	55.8	57.6	52.3	54.1
87.5°	17.4	19.2	15.7	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)