

Scaled data based on original data using  
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or  
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **24CZ-LD5-65SE-SQP-UNV-L850-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-46-04  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-65SE-SQP-UNV-L850-CD1-U  
Description:

Light Source: -  
Ballast/Driver: -

Luminaire Equipment:	<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
	AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
	AS-5443-2	Good	REFLECTOR
	AS-5443-3	Good	DRIVER
	AS-5443-4	Good	UPPER MODULE
	AS-5443-5	Good	LENS
	AS-5443-6	Good	DRIVER 2
	AS-5443-7	Good	TRIM RING

**Summary**

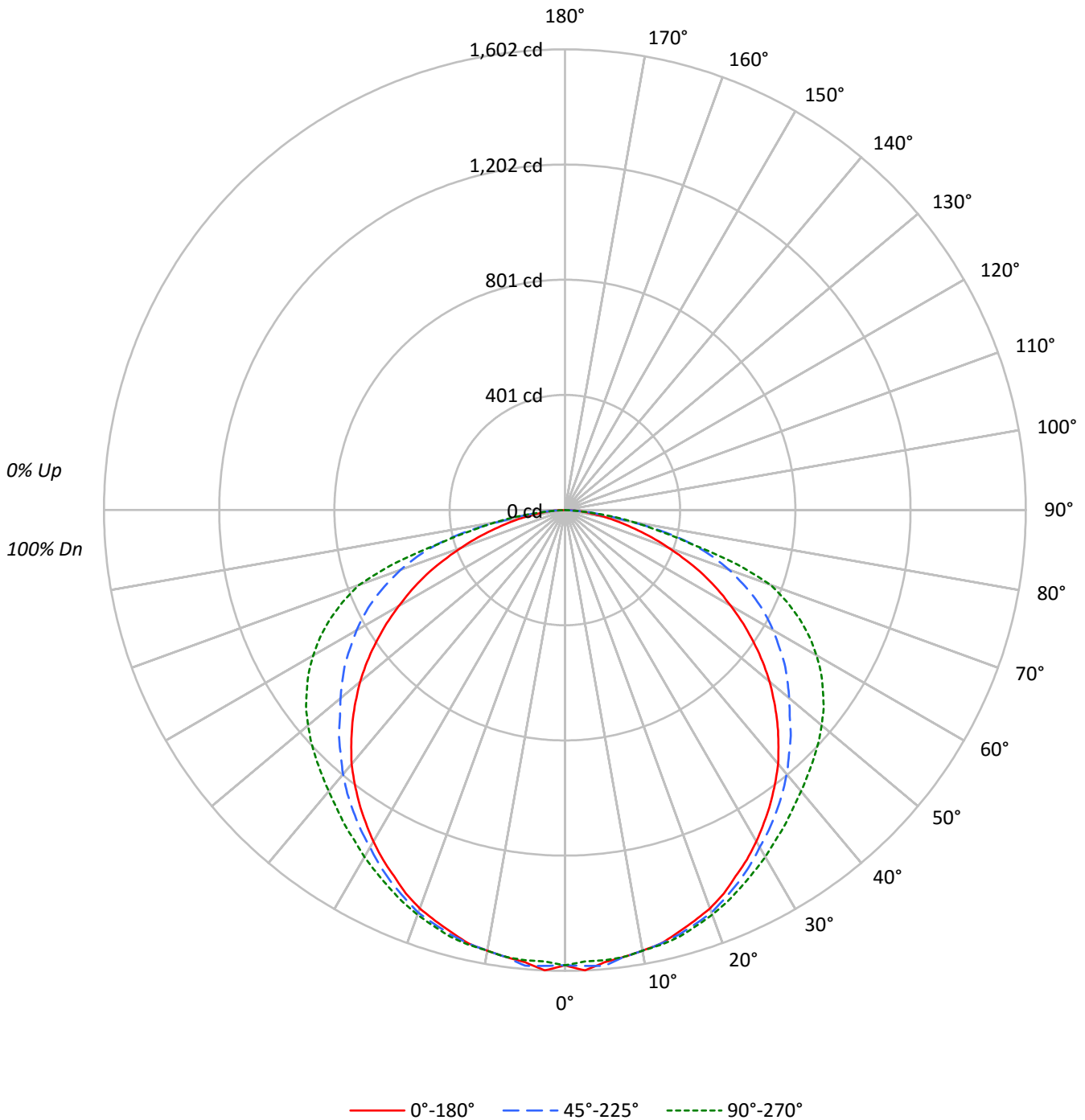
Lumens per Lamp: N/A  
Luminaire Lumens: 4982.6 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 60  
Input Voltage (V): NR  
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	
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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	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	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	66	54	45	39	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°	2129	2129	2129
5°	2128	2138	2113
10°	2116	2106	2107
15°	2104	2099	2112
20°	2092	2093	2106
25°	2061	2069	2100
30°	2039	2042	2103
35°	2011	2028	2118
40°	1984	2017	2152
45°	1939	2007	2216
50°	1888	2004	2301
55°	1814	2033	2397
60°	1717	2060	2501
65°	1602	2090	2592
70°	1410	2086	2637
75°	1196	1998	2000
80°	972	1360	1495
85°	743	744	684



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.3	3.0
10°-20°	431.5	8.7
20°-30°	657.6	13.2
30°-40°	804.6	16.1
40°-50°	865.7	17.4
50°-60°	838.6	16.8
60°-70°	710.4	14.3
70°-80°	429.4	8.6
80°-90°	94.4	1.9
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°	1239.4	24.9
0°-40°	2044.0	41.0
0°-60°	3748.4	75.2
0°-90°	4982.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4982.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1583	1583	1583	1583	1583	
5°	1579	1579	1590	1583	1571	150
15°	1521	1525	1528	1532	1536	429
25°	1405	1412	1428	1439	1447	648
35°	1246	1254	1281	1316	1335	779
45°	1045	1064	1110	1180	1223	805
55°	801	836	932	1041	1095	715
65°	530	588	731	847	902	522
75°	252	340	460	468	457	270
85°	62	74	77	74	70	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1582.6	1582.6	1582.6	1582.6	1582.6
2.5°	1601.9	1598.1	1586.5	1578.7	1571.0
5°	1578.7	1578.7	1590.3	1582.6	1571.0
7.5°	1567.1	1567.1	1567.1	1586.5	1567.1
10°	1555.5	1559.4	1555.5	1571.0	1555.5
12.5°	1543.9	1543.9	1543.9	1547.8	1547.8
15°	1520.7	1524.6	1528.4	1532.3	1536.2
17.5°	1497.5	1501.3	1509.1	1512.9	1516.8
20°	1474.2	1478.1	1489.7	1489.7	1497.5
22.5°	1443.3	1443.3	1458.8	1462.6	1474.2
25°	1404.6	1412.3	1427.8	1439.4	1447.2
27.5°	1369.8	1377.5	1393.0	1408.5	1420.1
30°	1331.1	1338.8	1354.3	1377.5	1393.0
32.5°	1288.5	1296.3	1319.5	1346.6	1362.0
35°	1246.0	1253.7	1280.8	1315.6	1334.9
37.5°	1199.5	1211.1	1242.1	1280.8	1304.0
40°	1153.1	1164.7	1199.5	1242.1	1276.9
42.5°	1098.9	1114.4	1153.1	1211.1	1249.8
45°	1044.7	1064.1	1110.5	1180.2	1222.7
47.5°	986.7	1006.0	1060.2	1149.2	1195.7
50°	928.7	951.9	1017.7	1114.4	1164.7
52.5°	866.7	890.0	975.1	1079.6	1133.7
55°	801.0	835.8	932.5	1040.9	1095.0
57.5°	735.2	773.9	882.2	998.3	1056.4
60°	665.5	712.0	835.8	951.9	1009.9
62.5°	599.8	650.1	785.5	901.6	959.6
65°	530.1	588.2	731.3	847.4	901.6
67.5°	456.6	530.1	669.4	781.6	835.8
70°	383.1	468.2	607.5	712.0	762.3
72.5°	317.3	406.3	537.8	626.8	626.8
75°	251.5	340.5	460.5	468.2	456.6
77.5°	193.5	278.6	359.9	328.9	336.6
80°	143.2	212.8	228.3	239.9	247.6
82.5°	96.7	143.2	147.0	154.8	154.8
85°	61.9	73.5	77.4	73.5	69.6
87.5°	27.1	31.0	23.2	15.5	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)