

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-L840-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-L840-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

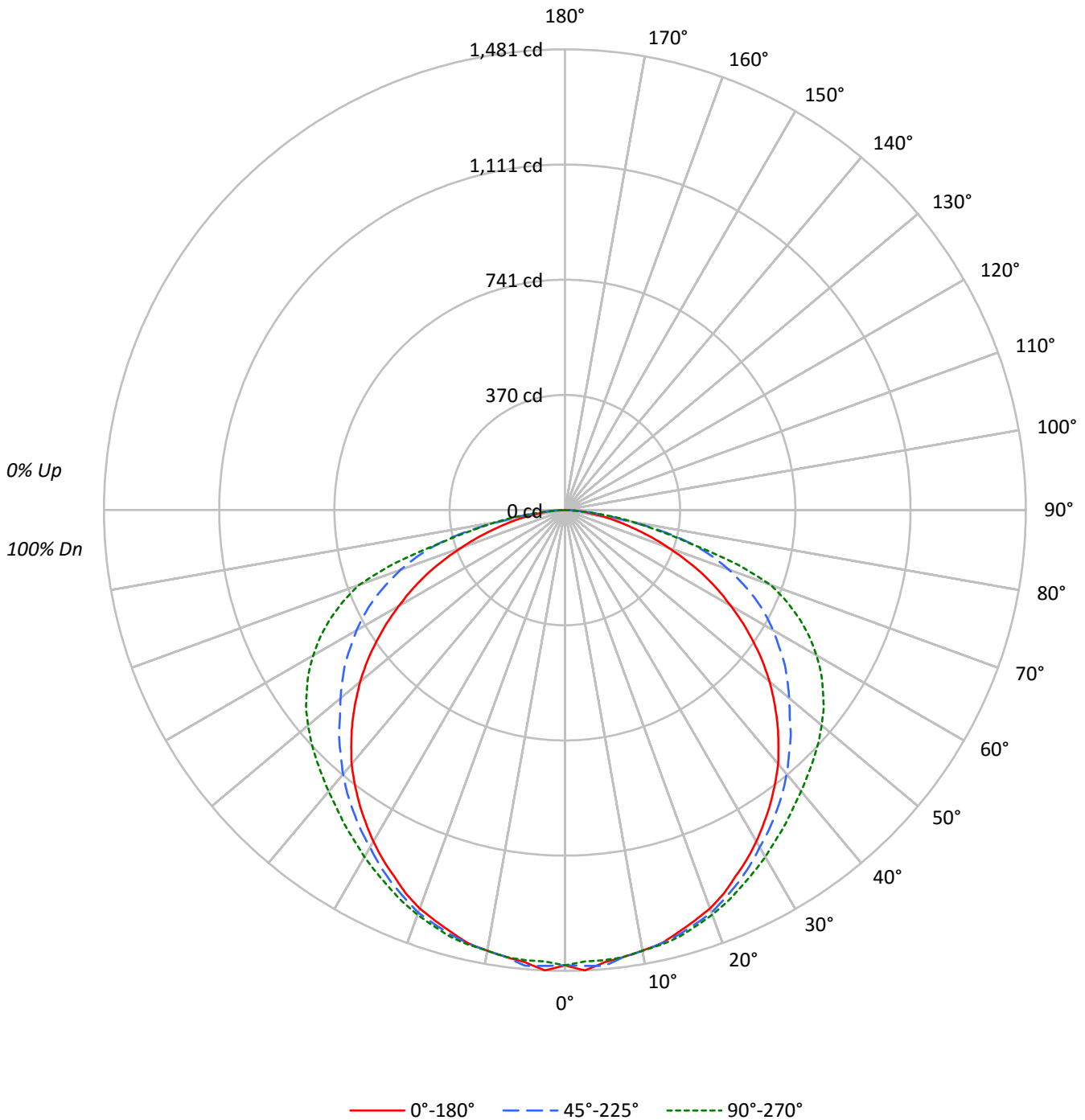
Lumens per Lamp: N/A
Luminaire Lumens: 4606.2 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 60
Input Voltage (V): NR
Input Current (A_{in}): 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°	1968	1968	1968
5°	1967	1977	1953
10°	1956	1946	1947
15°	1945	1941	1952
20°	1934	1935	1947
25°	1906	1912	1941
30°	1885	1887	1945
35°	1859	1875	1958
40°	1834	1865	1990
45°	1793	1855	2049
50°	1745	1852	2127
55°	1677	1880	2216
60°	1587	1904	2312
65°	1481	1933	2397
70°	1303	1928	2437
75°	1106	1847	1849
80°	898	1257	1382
85°	687	687	633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.9	3.0
10°-20°	398.9	8.7
20°-30°	607.9	13.2
30°-40°	743.8	16.1
40°-50°	800.4	17.4
50°-60°	775.3	16.8
60°-70°	656.7	14.3
70°-80°	397.0	8.6
80°-90°	87.2	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°	1145.8	24.9
0°-40°	1889.6	41.0
0°-60°	3465.2	75.2
0°-90°	4606.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4606.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1463	1463	1463	1463	1463	
5°	1460	1460	1470	1463	1452	139
15°	1406	1409	1413	1416	1420	397
25°	1298	1306	1320	1331	1338	599
35°	1152	1159	1184	1216	1234	720
45°	966	984	1027	1091	1130	744
55°	740	773	862	962	1012	661
65°	490	544	676	783	834	483
75°	232	315	426	433	422	250
85°	57	68	72	68	64	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1463.0	1463.0	1463.0	1463.0	1463.0
2.5°	1480.9	1477.4	1466.6	1459.5	1452.3
5°	1459.5	1459.5	1470.2	1463.0	1452.3
7.5°	1448.7	1448.7	1448.7	1466.6	1448.7
10°	1438.0	1441.6	1438.0	1452.3	1438.0
12.5°	1427.3	1427.3	1427.3	1430.9	1430.9
15°	1405.8	1409.4	1413.0	1416.5	1420.1
17.5°	1384.4	1387.9	1395.1	1398.7	1402.2
20°	1362.9	1366.5	1377.2	1377.2	1384.4
22.5°	1334.3	1334.3	1348.6	1352.2	1362.9
25°	1298.5	1305.7	1320.0	1330.7	1337.8
27.5°	1266.3	1273.5	1287.8	1302.1	1312.8
30°	1230.5	1237.7	1252.0	1273.5	1287.8
32.5°	1191.2	1198.3	1219.8	1244.8	1259.2
35°	1151.8	1159.0	1184.0	1216.2	1234.1
37.5°	1108.9	1119.6	1148.3	1184.0	1205.5
40°	1066.0	1076.7	1108.9	1148.3	1180.5
42.5°	1015.9	1030.2	1066.0	1119.6	1155.4
45°	965.8	983.7	1026.6	1091.0	1130.4
47.5°	912.2	930.1	980.1	1062.4	1105.3
50°	858.5	880.0	940.8	1030.2	1076.7
52.5°	801.3	822.7	901.4	998.0	1048.1
55°	740.5	772.7	862.1	962.2	1012.3
57.5°	679.7	715.4	815.6	922.9	976.6
60°	615.3	658.2	772.7	880.0	933.6
62.5°	554.5	601.0	726.2	833.5	887.1
65°	490.1	543.7	676.1	783.4	833.5
67.5°	422.1	490.1	618.8	722.6	772.7
70°	354.1	432.8	561.6	658.2	704.7
72.5°	293.3	375.6	497.2	579.5	579.5
75°	232.5	314.8	425.7	432.8	422.1
77.5°	178.9	257.6	332.7	304.1	311.2
80°	132.4	196.7	211.1	221.8	228.9
82.5°	89.4	132.4	135.9	143.1	143.1
85°	57.2	68.0	71.5	68.0	64.4
87.5°	25.0	28.6	21.5	14.3	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)