

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: NEO-RAY

Report Number: P243291

Luminaire Tested: **S123DR-H1165D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243291
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-49)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H1165D830-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4254.3 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

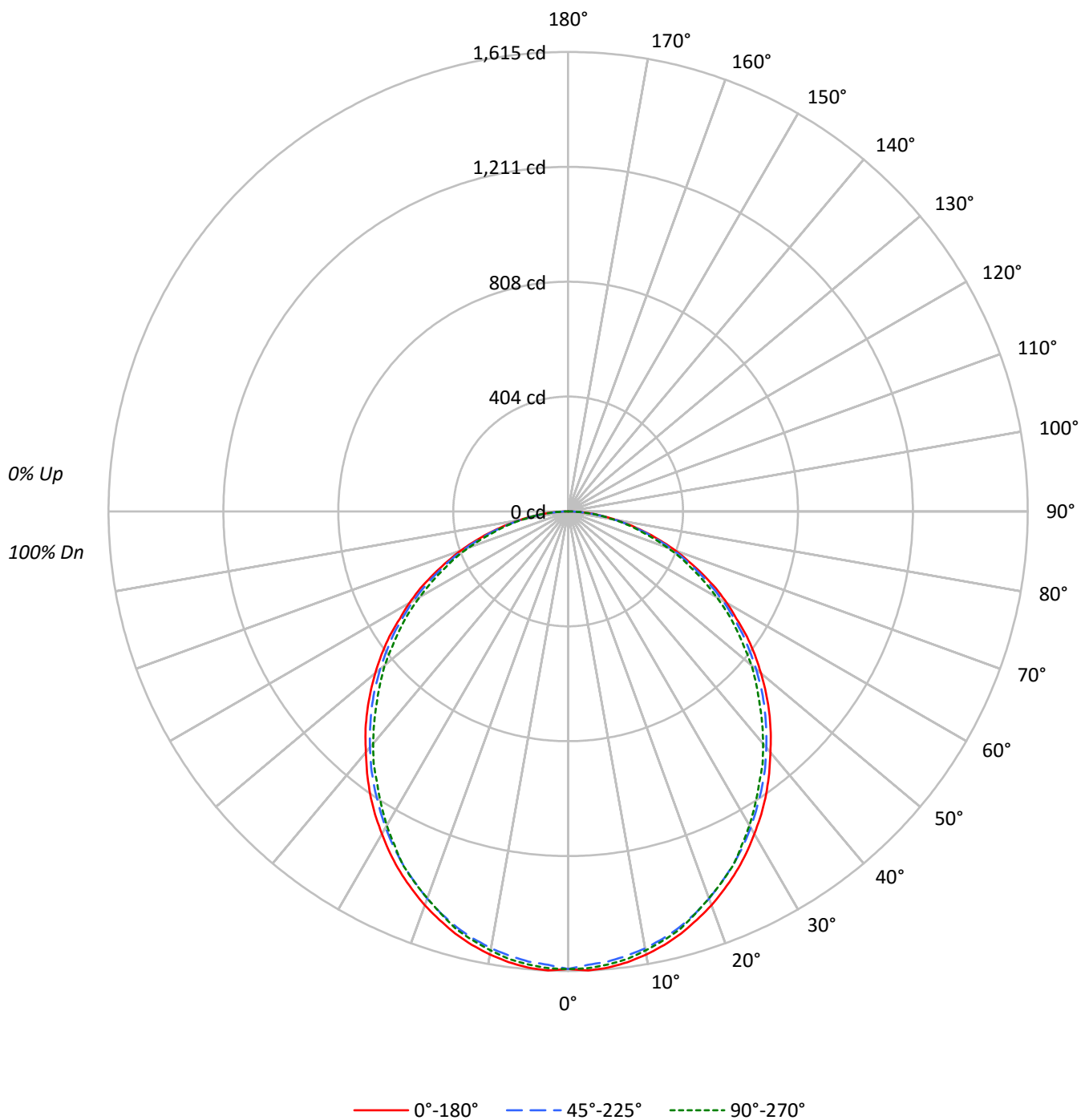
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61
4	83	71	62	55	80	70	61	55	67	60	54	65	59	54	63	57	53
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19493	19493	19493
5°	19584	19326	19455
10°	19468	19190	19288
15°	19266	18983	19067
20°	19000	18675	18657
25°	18689	18335	18352
30°	18316	17963	17833
35°	17951	17558	17304
40°	17496	17140	16866
45°	17137	16727	16295
50°	16675	16251	15851
55°	16194	15773	15241
60°	15619	15202	14592
65°	14943	14487	13879
70°	14190	13719	13155
75°	13165	12790	12106
80°	11846	11566	11196
85°	11056	10514	10139

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.7	3.6
10°-20°	429.1	10.1
20°-30°	635.2	14.9
30°-40°	745.0	17.5
40°-50°	753.2	17.7
50°-60°	666.1	15.7
60°-70°	500.3	11.8
70°-80°	288.3	6.8
80°-90°	85.5	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°	1216.0	28.6
0°-40°	1961.0	46.1
0°-60°	3380.2	79.5
0°-90°	4254.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4254.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1610	1603	1588	1602	1599	153
15°	1535	1527	1513	1523	1519	433
25°	1397	1387	1371	1378	1372	643
35°	1213	1202	1187	1183	1169	758
45°	1000	992	976	962	951	770
55°	766	761	746	732	721	684
65°	521	517	505	492	484	516
75°	281	278	273	265	258	298
85°	80	78	76	74	73	89
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1608.2	1608.2	1608.2	1608.2	1608.2
2.5°	1614.8	1609.5	1594.9	1609.5	1606.9
5°	1609.5	1602.9	1588.3	1601.6	1598.9
7.5°	1597.6	1591.0	1575.0	1589.6	1587.0
10°	1581.7	1575.0	1559.1	1571.1	1567.1
12.5°	1560.5	1553.8	1537.9	1547.2	1544.6
15°	1535.3	1527.3	1512.7	1523.3	1519.4
17.5°	1504.8	1498.2	1482.2	1495.5	1483.6
20°	1473.0	1466.3	1447.8	1459.7	1446.4
22.5°	1435.8	1427.9	1409.3	1417.3	1410.6
25°	1397.4	1386.8	1370.9	1377.5	1372.2
27.5°	1355.0	1344.4	1328.4	1331.1	1321.8
30°	1308.6	1299.3	1283.4	1286.0	1274.1
32.5°	1262.2	1254.2	1234.3	1234.3	1222.4
35°	1213.1	1202.5	1186.6	1182.6	1169.4
37.5°	1160.1	1150.8	1136.2	1129.6	1121.6
40°	1105.7	1100.4	1083.2	1075.2	1065.9
42.5°	1054.0	1044.7	1030.1	1019.5	1008.9
45°	999.7	991.7	975.8	962.5	950.6
47.5°	942.6	936.0	920.1	905.5	896.2
50°	884.3	879.0	861.8	845.9	840.6
52.5°	827.3	820.7	803.4	788.8	778.2
55°	766.3	761.0	746.4	731.8	721.2
57.5°	701.3	701.3	685.4	672.2	664.2
60°	644.3	637.7	627.1	612.5	601.9
62.5°	584.7	580.7	566.1	551.5	543.6
65°	521.0	517.1	505.1	491.9	483.9
67.5°	458.7	457.4	446.8	436.2	430.9
70°	400.4	397.7	387.1	376.5	371.2
72.5°	340.7	338.1	328.8	319.5	312.9
75°	281.1	278.4	273.1	265.2	258.5
77.5°	222.7	222.7	216.1	213.5	210.8
80°	169.7	168.4	165.7	163.1	160.4
82.5°	122.0	120.6	118.0	116.7	116.7
85°	79.5	78.2	75.6	74.2	72.9
87.5°	41.1	38.4	37.1	34.5	33.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)