

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: P243295

Luminaire Tested: **S123DR-H1165D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243295
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-H1165D835-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4513.7 lumens
Efficiency: N/A
Efficacy: 119.7 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

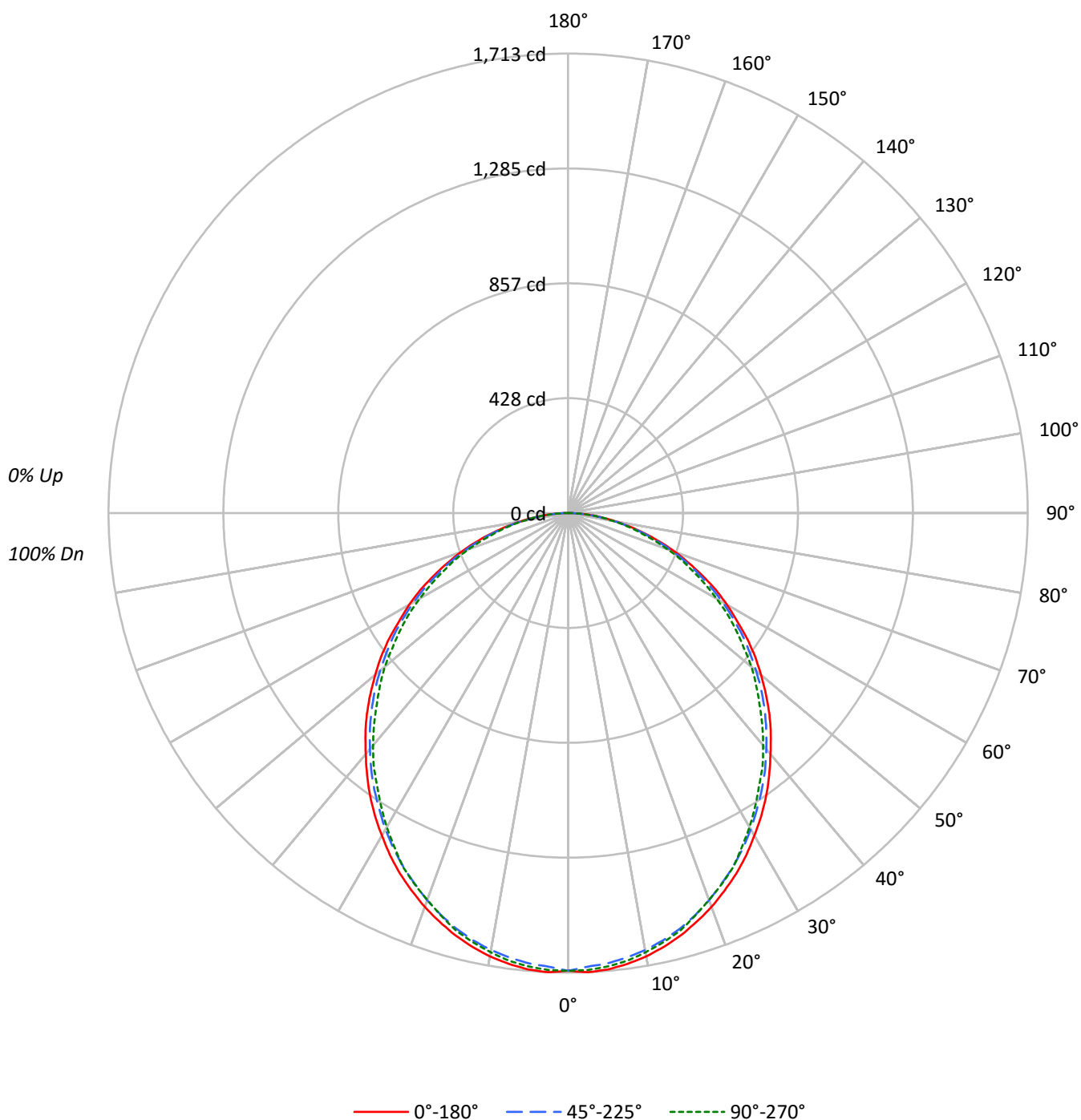
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84		84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70		70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59		59
4	83	71	62	55	80	70	61	55	67	60	54	65	59	54	63	57	53	51		51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39		39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34		34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30		30
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27		27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25		25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20681	20681	20681
5°	20777	20503	20641
10°	20654	20360	20464
15°	20441	20141	20229
20°	20159	19813	19795
25°	19829	19452	19472
30°	19431	19057	18920
35°	19046	18628	18358
40°	18562	18184	17894
45°	18181	17747	17288
50°	17692	17241	16817
55°	17181	16735	16171
60°	16572	16129	15481
65°	15855	15370	14725
70°	15055	14555	13960
75°	13966	13572	12846
80°	12565	12271	11881
85°	11738	11154	10764

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.0	3.6
10°-20°	455.2	10.1
20°-30°	673.9	14.9
30°-40°	790.4	17.5
40°-50°	799.1	17.7
50°-60°	706.7	15.7
60°-70°	530.8	11.8
70°-80°	305.9	6.8
80°-90°	90.7	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°	1290.1	28.6
0°-40°	2080.5	46.1
0°-60°	3586.3	79.5
0°-90°	4513.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4513.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1708	1701	1685	1699	1696	162
15°	1629	1620	1605	1616	1612	459
25°	1483	1471	1454	1462	1456	683
35°	1287	1276	1259	1255	1241	804
45°	1061	1052	1035	1021	1008	817
55°	813	807	792	776	765	726
65°	553	549	536	522	513	548
75°	298	295	290	281	274	316
85°	84	83	80	79	77	95
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1706.2	1706.2	1706.2	1706.2	1706.2
2.5°	1713.3	1707.6	1692.2	1707.6	1704.8
5°	1707.6	1700.6	1685.1	1699.2	1696.4
7.5°	1695.0	1687.9	1671.1	1686.5	1683.7
10°	1678.1	1671.1	1654.2	1666.8	1662.6
12.5°	1655.6	1648.6	1631.7	1641.5	1638.7
15°	1628.9	1620.4	1605.0	1616.2	1612.0
17.5°	1596.5	1589.5	1572.6	1586.7	1574.0
20°	1562.8	1555.7	1536.0	1548.7	1534.6
22.5°	1523.4	1514.9	1495.2	1503.7	1496.6
25°	1482.6	1471.3	1454.4	1461.5	1455.9
27.5°	1437.6	1426.3	1409.4	1412.2	1402.4
30°	1388.3	1378.5	1361.6	1364.4	1351.8
32.5°	1339.1	1330.7	1309.6	1309.6	1296.9
35°	1287.1	1275.8	1258.9	1254.7	1240.6
37.5°	1230.8	1220.9	1205.5	1198.4	1190.0
40°	1173.1	1167.5	1149.2	1140.8	1130.9
42.5°	1118.3	1108.4	1092.9	1081.7	1070.4
45°	1060.6	1052.2	1035.3	1021.2	1008.5
47.5°	1000.1	993.1	976.2	960.7	950.9
50°	938.2	932.6	914.3	897.4	891.8
52.5°	877.7	870.7	852.4	836.9	825.7
55°	813.0	807.4	791.9	776.5	765.2
57.5°	744.1	744.1	727.2	713.2	704.7
60°	683.6	676.6	665.3	649.9	638.6
62.5°	620.3	616.1	600.6	585.2	576.7
65°	552.8	548.6	535.9	521.9	513.4
67.5°	486.7	485.3	474.0	462.8	457.2
70°	424.8	422.0	410.7	399.5	393.9
72.5°	361.5	358.7	348.8	339.0	332.0
75°	298.2	295.4	289.8	281.3	274.3
77.5°	236.3	236.3	229.3	226.5	223.7
80°	180.0	178.6	175.8	173.0	170.2
82.5°	129.4	128.0	125.2	123.8	123.8
85°	84.4	83.0	80.2	78.8	77.4
87.5°	43.6	40.8	39.4	36.6	35.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)