

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: P242435

Luminaire Tested: **S123DR-S1165D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242435
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-S1165D835-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4485.9 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

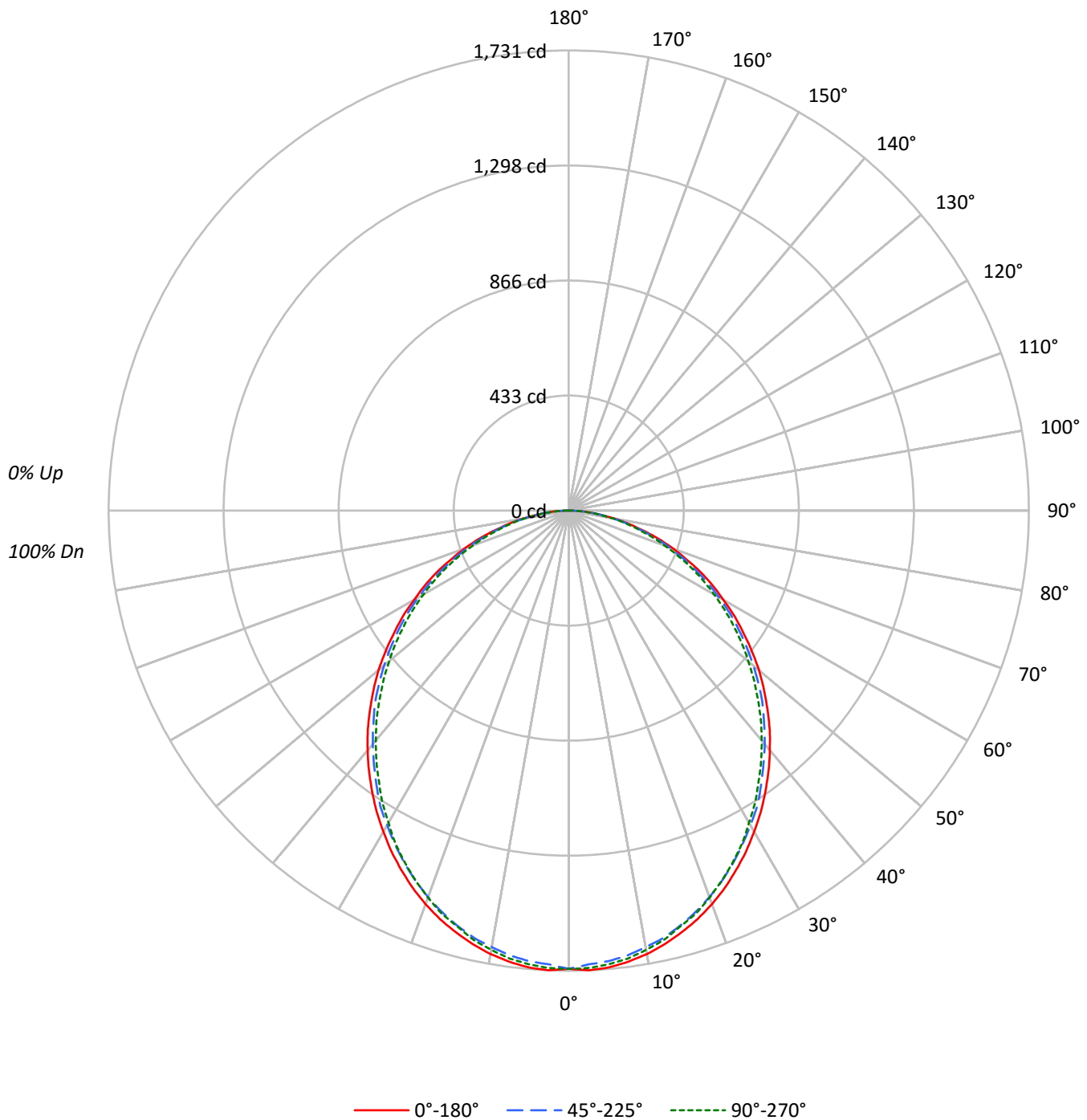
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	95		98	94	92		94	91	89		90	88	86
2	99	91	84	79	97	89	83	78		86	80	76		82	78	74		79	76	72
3	91	80	72	66	88	79	71	65		76	69	64		73	67	63		70	66	62
4	83	71	62	56	81	70	62	55		67	60	55		65	59	54		63	58	53
5	76	64	55	48	74	63	54	48		60	53	47		58	52	47		57	51	46
6	71	57	49	42	69	56	48	42		55	47	42		53	46	41		51	46	41
7	66	52	43	37	64	51	43	37		50	42	37		48	42	37		47	41	36
8	61	48	39	33	60	47	39	33		46	38	33		44	38	33		43	37	33
9	57	44	36	30	56	43	35	30		42	35	30		41	34	30		40	34	30
10	54	40	33	27	52	40	32	27		39	32	27		38	32	27		37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20893	20893	20893
5°	20990	20702	20847
10°	20850	20521	20649
15°	20606	20290	20328
20°	20321	19959	19978
25°	19941	19564	19524
30°	19519	19126	18980
35°	19080	18662	18421
40°	18621	18151	17869
45°	18114	17682	17250
50°	17607	17104	16628
55°	16944	16507	16004
60°	16276	15809	15307
65°	15686	15049	14582
70°	14810	14183	13552
75°	13535	13048	12495
80°	12209	11692	11587
85°	10723	10305	9888

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	3.6
10°-20°	458.8	10.2
20°-30°	677.6	15.1
30°-40°	791.4	17.6
40°-50°	795.6	17.7
50°-60°	698.9	15.6
60°-70°	520.5	11.6
70°-80°	296.2	6.6
80°-90°	84.2	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°	1299.0	29.0
0°-40°	2090.4	46.6
0°-60°	3584.9	79.9
0°-90°	4485.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4485.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1724	1724	1724	1724	1724	
5°	1725	1718	1701	1716	1713	164
15°	1642	1636	1617	1629	1620	463
25°	1491	1482	1463	1464	1460	687
35°	1289	1280	1261	1252	1245	807
45°	1057	1051	1032	1014	1006	816
55°	802	800	781	765	757	718
65°	547	540	525	513	508	540
75°	289	283	279	271	267	309
85°	77	74	74	71	71	88
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1723.7	1723.7	1723.7	1723.7	1723.7
2.5°	1731.1	1725.1	1708.8	1723.7	1722.2
5°	1725.1	1717.7	1701.4	1716.2	1713.3
7.5°	1711.8	1704.4	1688.1	1701.4	1699.9
10°	1694.0	1686.6	1667.3	1680.7	1677.7
12.5°	1670.3	1664.4	1646.6	1655.5	1654.0
15°	1642.1	1636.2	1616.9	1628.8	1619.9
17.5°	1611.0	1603.6	1584.3	1593.2	1590.3
20°	1575.4	1566.6	1547.3	1553.2	1548.8
22.5°	1535.4	1526.5	1507.3	1511.7	1505.8
25°	1491.0	1482.1	1462.8	1464.3	1459.8
27.5°	1445.0	1436.1	1415.4	1416.9	1412.4
30°	1394.6	1387.2	1366.5	1366.5	1356.1
32.5°	1344.2	1333.9	1319.0	1308.7	1304.2
35°	1289.4	1280.5	1261.2	1252.4	1244.9
37.5°	1234.6	1222.7	1203.4	1193.1	1188.6
40°	1176.8	1167.9	1147.1	1135.3	1129.3
42.5°	1119.0	1108.6	1087.8	1076.0	1070.1
45°	1056.7	1050.8	1031.5	1013.7	1006.3
47.5°	996.0	987.1	969.3	951.5	945.6
50°	933.7	926.3	907.0	890.7	881.8
52.5°	868.5	864.1	843.3	830.0	821.1
55°	801.8	800.3	781.1	764.8	757.3
57.5°	739.6	733.6	718.8	704.0	695.1
60°	671.4	669.9	652.1	638.8	631.4
62.5°	610.6	606.2	588.4	575.0	570.6
65°	546.9	539.5	524.7	512.8	508.4
67.5°	478.7	472.8	460.9	450.6	444.6
70°	417.9	409.1	400.2	389.8	382.4
72.5°	354.2	348.3	337.9	329.0	326.1
75°	289.0	283.1	278.6	271.2	266.8
77.5°	231.2	228.2	222.3	216.4	216.4
80°	174.9	170.4	167.5	166.0	166.0
82.5°	120.0	120.0	120.0	117.1	115.6
85°	77.1	74.1	74.1	71.1	71.1
87.5°	38.5	34.1	32.6	31.1	31.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)