

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: P242537

Luminaire Tested: **S123RDR-S1000D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242537  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1000D835-X4F0-XX-UDD-F-W  
Description: DEFINE 3 REGRESSED 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: 3552.3 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')  
CIE Type: Direct

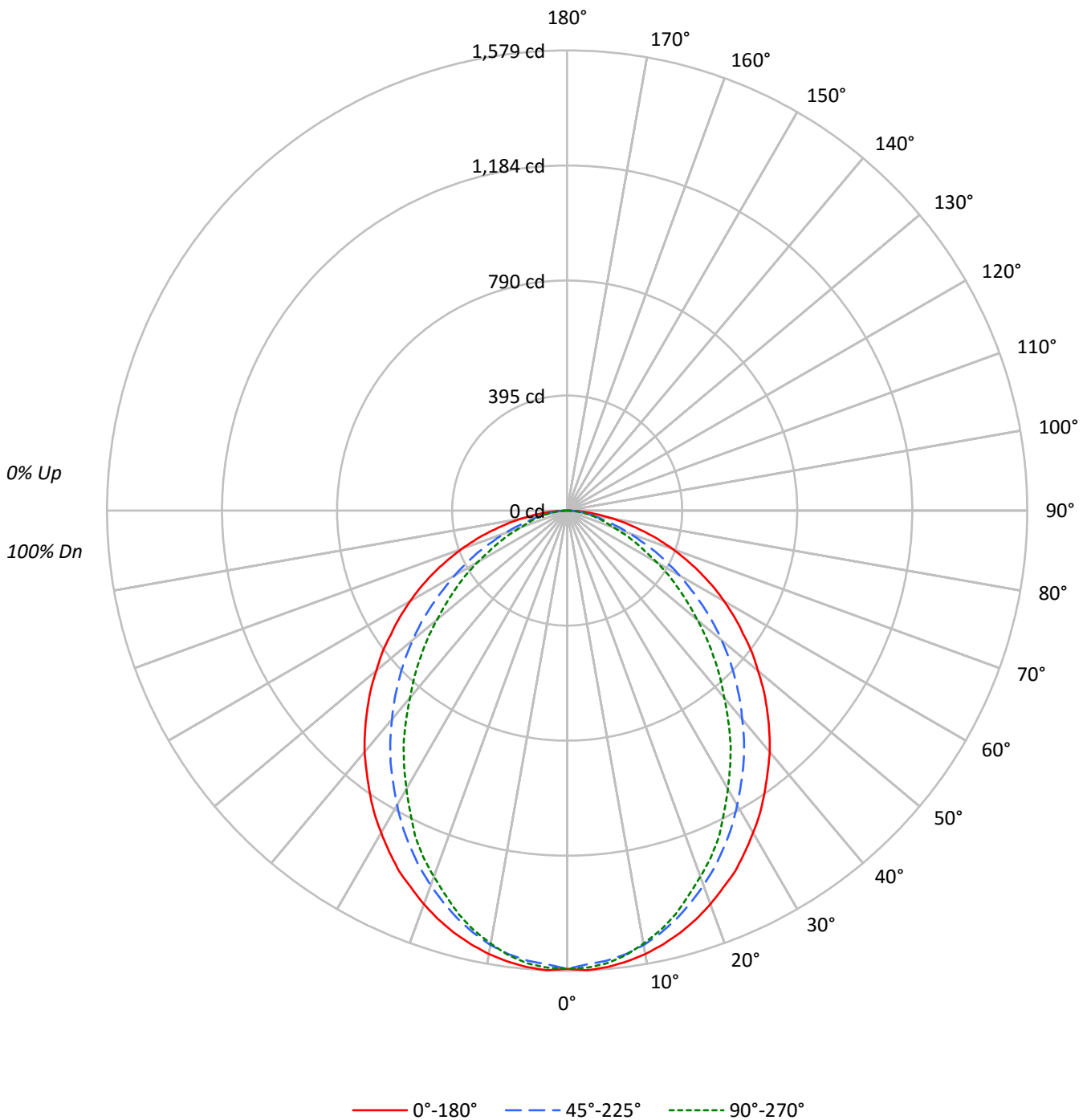
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	19059	19059	19059
5°	19132	18868	18976
10°	19024	18631	18568
15°	18819	18196	18004
20°	18539	17650	17240
25°	18249	17039	16493
30°	17866	16332	15439
35°	17474	15624	14473
40°	17111	14791	13277
45°	16636	13969	12198
50°	16112	13034	10990
55°	15577	11965	9863
60°	15086	10819	8625
65°	14447	9582	7388
70°	13648	8045	5965
75°	12481	6332	5615
80°	11127	5605	5165
85°	9402	4965	4617



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.8	4.2
10°-20°	411.2	11.6
20°-30°	592.0	16.7
30°-40°	666.7	18.8
40°-50°	637.8	18.0
50°-60°	522.1	14.7
60°-70°	352.0	9.9
70°-80°	176.5	5.0
80°-90°	46.2	1.3
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°	1151.1	32.4
0°-40°	1817.8	51.2
0°-60°	2977.6	83.8
0°-90°	3552.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3552.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1572	1572	1572	1572	1572	
5°	1572	1566	1551	1562	1560	149
15°	1500	1486	1450	1444	1435	423
25°	1364	1333	1274	1247	1233	628
35°	1181	1135	1056	1001	978	739
45°	970	913	815	742	712	749
55°	737	675	566	492	467	661
65°	504	434	334	272	258	499
75°	266	205	135	122	120	284
85°	68	40	36	33	33	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1572.4	1572.4	1572.4	1572.4	1572.4
2.5°	1578.8	1573.7	1558.4	1572.4	1569.8
5°	1572.4	1566.0	1550.7	1562.2	1559.6
7.5°	1560.9	1554.5	1535.4	1543.1	1539.2
10°	1545.6	1536.7	1513.7	1515.0	1508.6
12.5°	1523.9	1513.7	1484.4	1483.1	1475.5
15°	1499.7	1485.7	1450.0	1443.6	1434.7
17.5°	1470.4	1455.1	1410.4	1397.7	1384.9
20°	1437.2	1416.8	1368.3	1351.8	1336.5
22.5°	1400.2	1376.0	1323.7	1302.0	1288.0
25°	1364.5	1332.6	1274.0	1247.2	1233.2
27.5°	1321.2	1286.7	1223.0	1187.3	1165.6
30°	1276.5	1238.3	1166.9	1123.5	1103.1
32.5°	1231.9	1187.3	1110.7	1062.3	1040.6
35°	1180.9	1135.0	1055.9	1001.1	978.1
37.5°	1129.9	1080.1	997.2	936.0	908.0
40°	1081.4	1025.3	934.8	868.4	839.1
42.5°	1026.6	970.5	876.1	802.1	776.6
45°	970.5	913.1	814.9	742.2	711.6
47.5°	915.6	851.9	754.9	675.9	649.1
50°	854.4	794.5	691.2	612.1	582.8
52.5°	799.6	733.3	631.2	548.4	522.9
55°	737.1	674.6	566.2	492.2	466.7
57.5°	681.0	613.4	503.7	433.6	411.9
60°	622.3	552.2	446.3	377.5	355.8
62.5°	563.7	493.5	387.7	323.9	301.0
65°	503.7	433.6	334.1	271.6	257.6
67.5°	443.8	372.4	275.5	228.3	213.0
70°	385.1	316.3	227.0	182.4	168.3
72.5°	326.5	258.9	179.8	145.4	141.6
75°	266.5	205.3	135.2	122.4	119.9
77.5°	211.7	155.6	105.8	98.2	95.6
80°	159.4	107.1	80.3	76.5	74.0
82.5°	109.7	66.3	57.4	53.6	53.6
85°	67.6	39.5	35.7	33.2	33.2
87.5°	30.6	16.6	16.6	15.3	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)