

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059099

Luminaire Tested: S123RDR-S1165D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059099  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D835-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

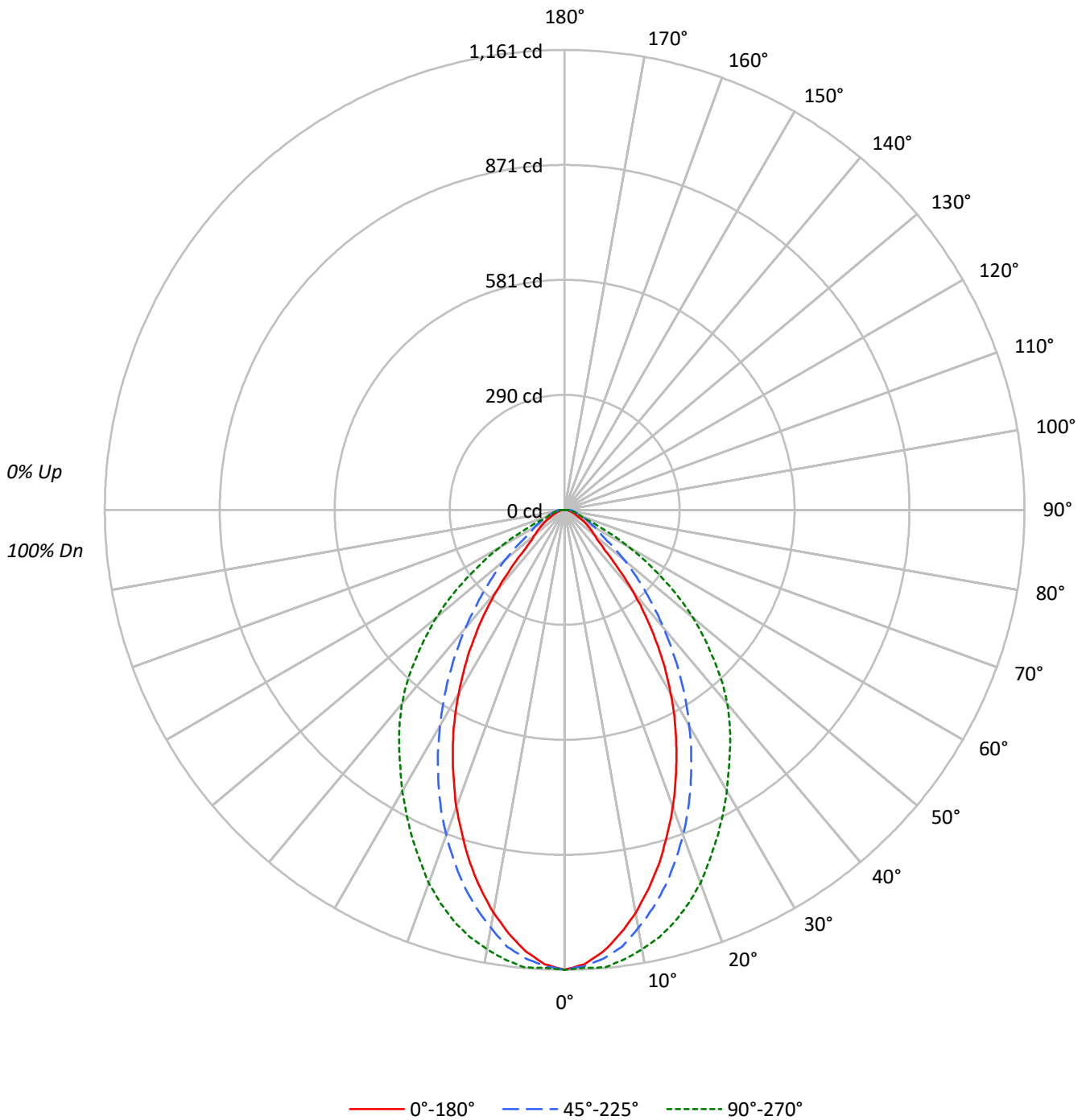
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1558.6 lumens  
Efficiency: N/A  
Efficacy: 37.3 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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: 24 FT

TEST NUMBER: P1059099

CATALOG NUMBER: S123RDR-S1165D835-X4F0-XX-UDD-SVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1059099

CATALOG NUMBER: S123RDR-S1165D835-X4F0-XX-UDD-SVL-W

**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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

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

	0°	45°	90°
0°	13633	13633	13633
5°	13192	13396	13669
10°	12313	12777	13431
15°	11222	11940	13079
20°	9984	10922	12526
25°	8652	9773	11810
30°	7255	8526	11108
35°	5748	7256	10442
40°	4068	5969	9793
45°	2395	4718	8815
50°	1792	3584	7720
55°	1507	2422	6201
60°	1219	2067	4403
65°	961	1764	2326
70°	841	1535	1435
75°	785	1438	1375
80°	778	1562	1366
85°	970	2331	1751

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8815 cd/sqm



TEST NUMBER: P1059099

CATALOG NUMBER: S123RDR-S1165D835-X4F0-XX-UDD-SVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.8	6.9
10°-20°	277.7	17.8
20°-30°	353.7	22.7
30°-40°	332.7	21.3
40°-50°	239.6	15.4
50°-60°	138.4	8.9
60°-70°	63.3	4.1
70°-80°	31.6	2.0
80°-90°	14.9	1.0
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°	738.2	47.4
0°-40°	1070.9	68.7
0°-60°	1448.8	93.0
0°-90°	1558.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1558.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1161	1161	1161	1161	1161	
5°	1119	1138	1136	1148	1160	104
15°	923	956	982	1037	1076	257
25°	668	702	754	838	912	305
35°	401	436	506	623	728	249
45°	144	180	284	427	531	122
55°	74	76	118	225	303	66
65°	35	49	64	71	84	35
75°	17	33	32	30	30	18
85°	7	16	17	16	13	8
90°	0	0	0	0	0	



TEST NUMBER: P1059099

CATALOG NUMBER: S123RDR-S1165D835-X4F0-XX-UDD-SVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1161.0	1161.0	1161.0	1161.0	1161.0
2.5°	1148.1	1162.5	1152.4	1153.8	1156.7
5°	1119.2	1138.0	1136.5	1148.1	1159.6
7.5°	1078.8	1100.5	1112.0	1129.3	1145.2
10°	1032.7	1057.2	1071.6	1103.3	1126.4
12.5°	979.3	1011.0	1029.8	1071.6	1104.8
15°	923.1	956.2	982.2	1037.0	1075.9
17.5°	859.6	895.7	928.8	993.7	1041.3
20°	799.0	833.6	874.0	944.7	1002.4
22.5°	732.7	770.2	816.3	891.3	956.2
25°	667.8	702.4	754.3	838.0	911.5
27.5°	602.9	637.5	692.3	784.6	865.4
30°	535.1	571.1	628.8	731.2	819.2
32.5°	468.7	503.4	568.3	679.3	771.6
35°	401.0	435.6	506.2	623.1	728.4
37.5°	334.6	370.7	445.7	576.9	685.1
40°	265.4	304.3	389.4	529.3	638.9
42.5°	200.5	242.3	333.2	480.3	588.5
45°	144.2	180.3	284.1	426.9	530.8
47.5°	112.5	131.2	239.4	372.1	477.4
50°	98.1	101.0	196.2	321.6	422.6
52.5°	85.1	88.0	154.3	274.0	364.9
55°	73.6	76.4	118.3	225.0	302.9
57.5°	62.0	66.3	98.1	178.8	243.7
60°	51.9	57.7	88.0	137.0	187.5
62.5°	41.8	51.9	75.0	101.0	134.1
65°	34.6	49.0	63.5	70.7	83.7
67.5°	28.8	44.7	53.4	50.5	49.0
70°	24.5	40.4	44.7	40.4	41.8
72.5°	20.2	37.5	37.5	34.6	34.6
75°	17.3	33.2	31.7	30.3	30.3
77.5°	14.4	28.8	27.4	26.0	24.5
80°	11.5	23.1	23.1	21.6	20.2
82.5°	10.1	18.7	18.7	18.7	15.9
85°	7.2	15.9	17.3	15.9	13.0
87.5°	5.8	14.4	14.4	13.0	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)