

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: P1059092

Luminaire Tested: S123RDR-S1165D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059092  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D830-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

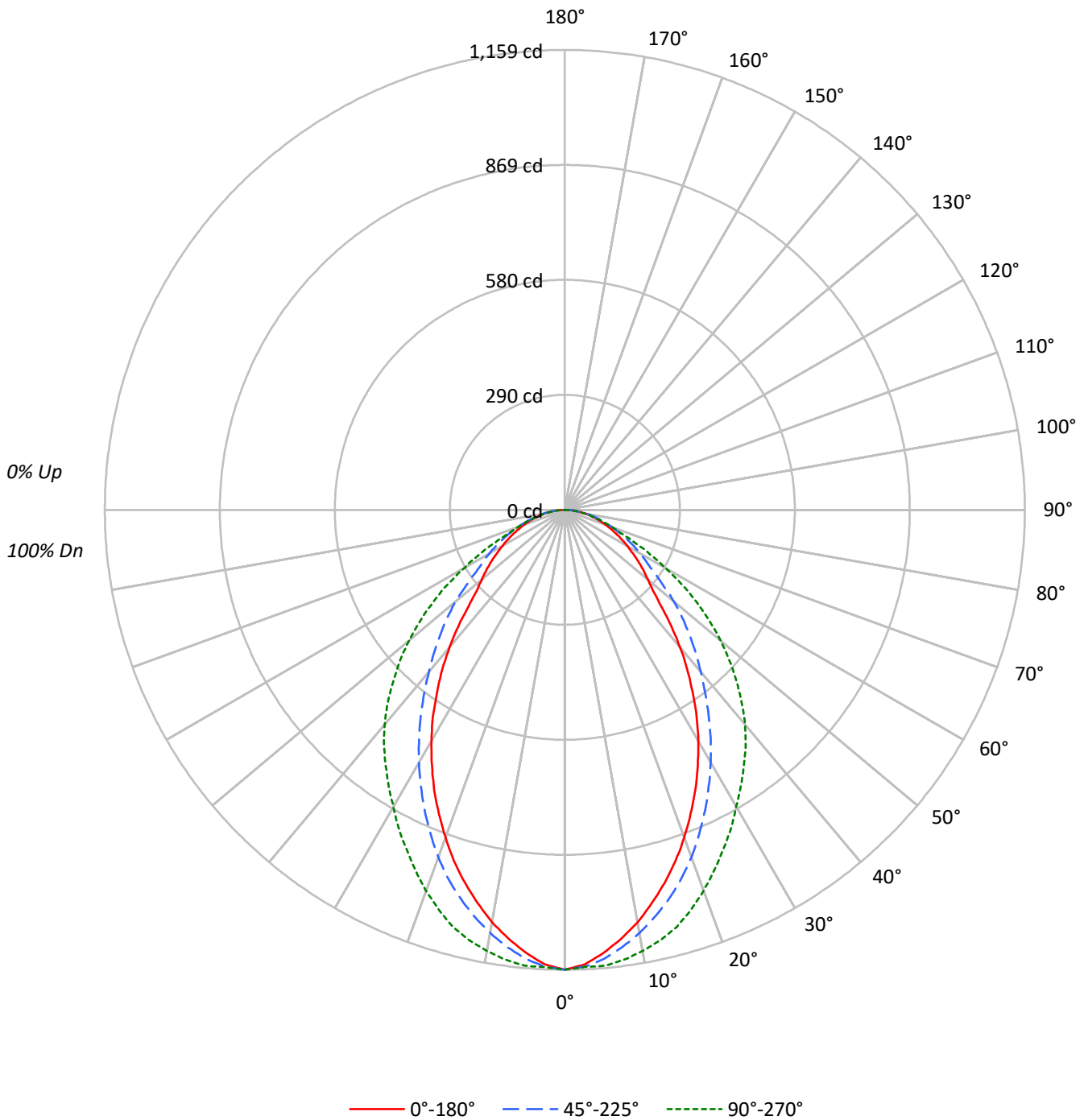
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2093.1 lumens  
Efficiency: N/A  
Efficacy: 50.1 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
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

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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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				31

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

	0°	45°	90°
0°	13607	13607	13607
5°	13210	13387	13594
10°	12585	12910	13461
15°	11824	12337	13228
20°	10983	11645	12765
25°	10085	10824	12232
30°	9117	9965	11715
35°	8042	9055	11274
40°	6913	8163	10828
45°	5684	7355	10151
50°	4987	6551	9355
55°	4617	5589	8287
60°	4244	5136	6860
65°	3962	4718	5399
70°	3732	4292	4292
75°	3512	3943	3698
80°	3307	3584	3124
85°	3112	3476	2385

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10151 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	5.1
10°-20°	287.2	13.7
20°-30°	389.4	18.6
30°-40°	407.2	19.5
40°-50°	353.1	16.9
50°-60°	262.7	12.6
60°-70°	168.6	8.1
70°-80°	90.4	4.3
80°-90°	27.3	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°	783.8	37.4
0°-40°	1191.0	56.9
0°-60°	1806.8	86.3
0°-90°	2093.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2093.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1159	1159	1159	1159	1159	
5°	1121	1140	1136	1144	1153	105
15°	973	996	1015	1056	1088	273
25°	778	803	835	891	944	357
35°	561	588	632	712	786	350
45°	342	368	443	538	611	269
55°	226	231	273	350	405	202
65°	143	155	170	181	194	142
75°	77	90	87	83	82	82
85°	23	28	26	22	18	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1158.8	1158.8	1158.8	1158.8	1158.8
2.5°	1146.5	1162.8	1152.0	1152.0	1153.3
5°	1120.7	1139.7	1135.7	1143.8	1153.3
7.5°	1089.5	1109.8	1111.2	1130.2	1143.8
10°	1055.5	1075.9	1082.7	1109.8	1128.9
12.5°	1014.8	1037.8	1050.1	1084.0	1111.2
15°	972.6	995.7	1014.8	1055.5	1088.1
17.5°	927.8	950.9	975.4	1021.5	1056.9
20°	878.9	903.4	931.9	978.1	1021.5
22.5°	828.6	854.5	884.3	934.6	983.5
25°	778.4	802.8	835.4	891.1	944.1
27.5°	725.4	751.2	785.2	846.3	906.1
30°	672.4	698.2	734.9	800.1	864.0
32.5°	618.1	643.9	683.3	756.7	825.9
35°	561.0	588.2	631.7	711.8	786.5
37.5°	506.7	532.5	581.4	669.7	748.5
40°	451.0	478.2	532.5	627.6	706.4
42.5°	396.7	423.8	487.7	582.8	660.2
45°	342.3	368.1	442.9	537.9	611.3
47.5°	300.2	319.2	400.7	490.4	563.8
50°	273.0	279.8	358.6	444.2	512.1
52.5°	248.6	254.0	312.4	398.0	459.2
55°	225.5	230.9	273.0	350.5	404.8
57.5°	202.4	209.2	243.2	301.6	350.5
60°	180.7	188.8	218.7	258.1	292.1
62.5°	161.7	171.2	194.3	218.7	241.8
65°	142.6	154.9	169.8	180.7	194.3
67.5°	125.0	138.6	146.7	149.4	150.8
70°	108.7	122.3	125.0	125.0	125.0
72.5°	92.4	107.3	104.6	103.2	101.9
75°	77.4	89.7	86.9	82.9	81.5
77.5°	62.5	73.4	69.3	66.6	62.5
80°	48.9	57.1	53.0	50.3	46.2
82.5°	36.7	42.1	38.0	35.3	31.2
85°	23.1	28.5	25.8	21.7	17.7
87.5°	12.2	16.3	13.6	12.2	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)