

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: P1059155

Luminaire Tested: S123RDR-S1165D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059155  
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-S1165D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

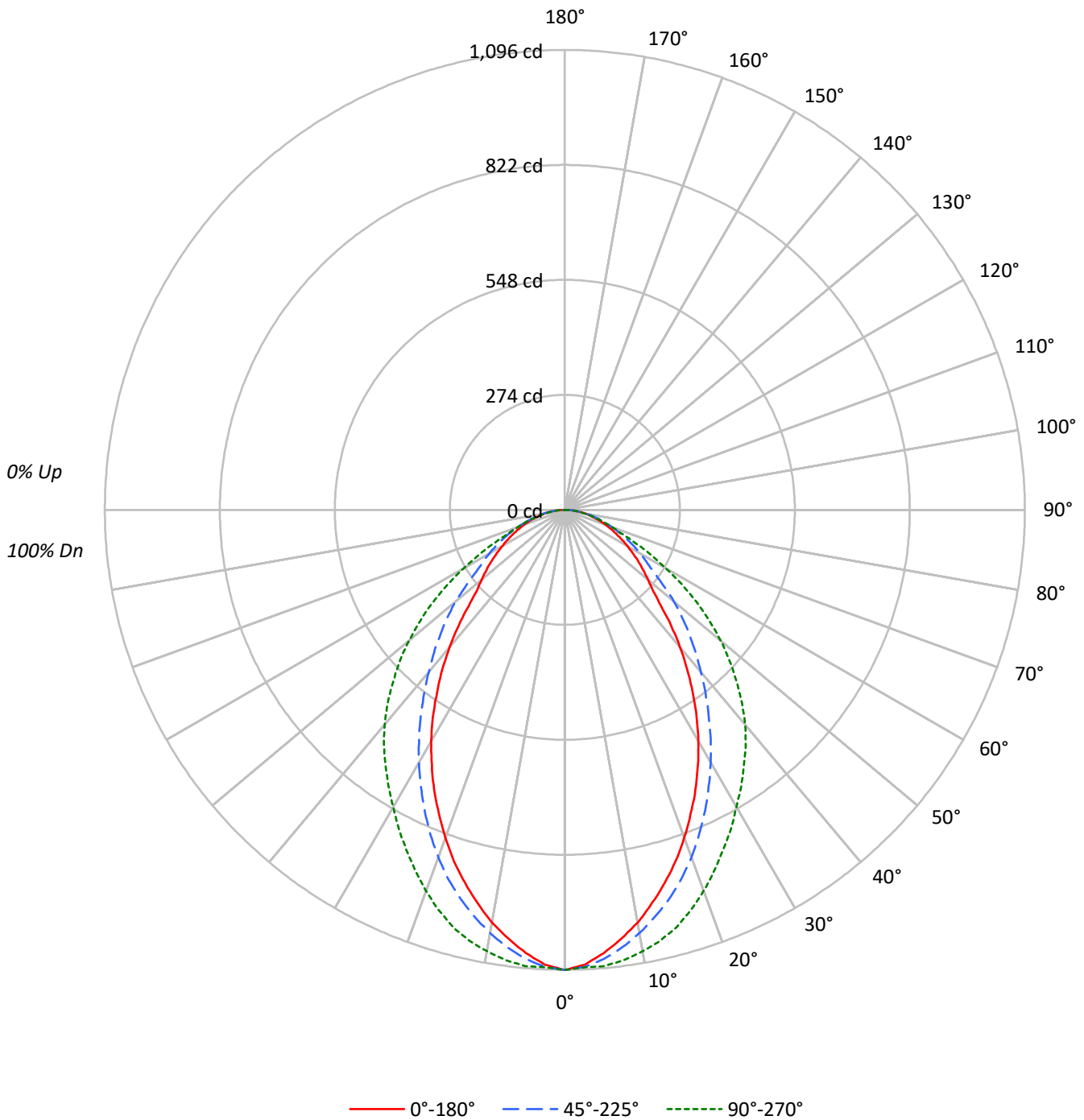
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1980.3 lumens  
Efficiency: N/A  
Efficacy: 47.4 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										
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	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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	65	65	65	65														
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51	51	51	51	51	51	51														
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41	41	41	41	41	41	41														
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34	34	34	34	34	34	34														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31	31	31	31	31	31	31														

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

	0°	45°	90°
0°	12873	12873	12873
5°	12498	12664	12861
10°	11907	12213	12734
15°	11187	11670	12514
20°	10390	11017	12077
25°	9541	10241	11573
30°	8626	9428	11083
35°	7609	8567	10667
40°	6541	7723	10244
45°	5379	6958	9603
50°	4719	6198	8851
55°	4367	5288	7841
60°	4014	4859	6489
65°	3748	4462	5107
70°	3529	4058	4058
75°	3326	3734	3498
80°	3131	3388	2955
85°	2937	3287	2250

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9603 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.4	5.1
10°-20°	271.7	13.7
20°-30°	368.4	18.6
30°-40°	385.2	19.5
40°-50°	334.1	16.9
50°-60°	248.5	12.6
60°-70°	159.5	8.1
70°-80°	85.5	4.3
80°-90°	25.8	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°	741.6	37.4
0°-40°	1126.8	56.9
0°-60°	1709.4	86.3
0°-90°	1980.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1980.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1096	1096	1096	1096	1096	
5°	1060	1078	1074	1082	1091	99
15°	920	942	960	999	1029	258
25°	736	760	790	843	893	338
35°	531	556	598	673	744	331
45°	324	348	419	509	578	255
55°	213	218	258	332	383	191
65°	135	146	161	171	184	134
75°	73	85	82	78	77	78
85°	22	27	24	21	17	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1096.3	1096.3	1096.3	1096.3	1096.3
2.5°	1084.7	1100.1	1089.8	1089.8	1091.1
5°	1060.3	1078.3	1074.4	1082.1	1091.1
7.5°	1030.7	1050.0	1051.3	1069.3	1082.1
10°	998.6	1017.9	1024.3	1050.0	1068.0
12.5°	960.0	981.9	993.4	1025.6	1051.3
15°	920.2	942.0	960.0	998.6	1029.4
17.5°	877.8	899.6	922.8	966.5	999.9
20°	831.5	854.6	881.6	925.3	966.5
22.5°	784.0	808.4	836.7	884.2	930.5
25°	736.4	759.5	790.4	843.1	893.2
27.5°	686.3	710.7	742.8	800.7	857.2
30°	636.2	660.6	695.3	757.0	817.4
32.5°	584.8	609.2	646.4	715.8	781.4
35°	530.8	556.5	597.6	673.4	744.1
37.5°	479.4	503.8	550.1	633.6	708.1
40°	426.7	452.4	503.8	593.8	668.3
42.5°	375.3	401.0	461.4	551.3	624.6
45°	323.9	348.3	419.0	508.9	578.3
47.5°	284.0	302.0	379.1	464.0	533.3
50°	258.3	264.7	339.3	420.3	484.5
52.5°	235.2	240.3	295.6	376.6	434.4
55°	213.3	218.5	258.3	331.6	383.0
57.5°	191.5	197.9	230.0	285.3	331.6
60°	170.9	178.6	206.9	244.2	276.3
62.5°	152.9	161.9	183.8	206.9	228.8
65°	134.9	146.5	160.6	170.9	183.8
67.5°	118.2	131.1	138.8	141.4	142.7
70°	102.8	115.7	118.2	118.2	118.2
72.5°	87.4	101.5	99.0	97.7	96.4
75°	73.3	84.8	82.3	78.4	77.1
77.5°	59.1	69.4	65.5	63.0	59.1
80°	46.3	54.0	50.1	47.6	43.7
82.5°	34.7	39.8	36.0	33.4	29.6
85°	21.8	27.0	24.4	20.6	16.7
87.5°	11.6	15.4	12.9	11.6	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)