

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: P1059086

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059086  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D830-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

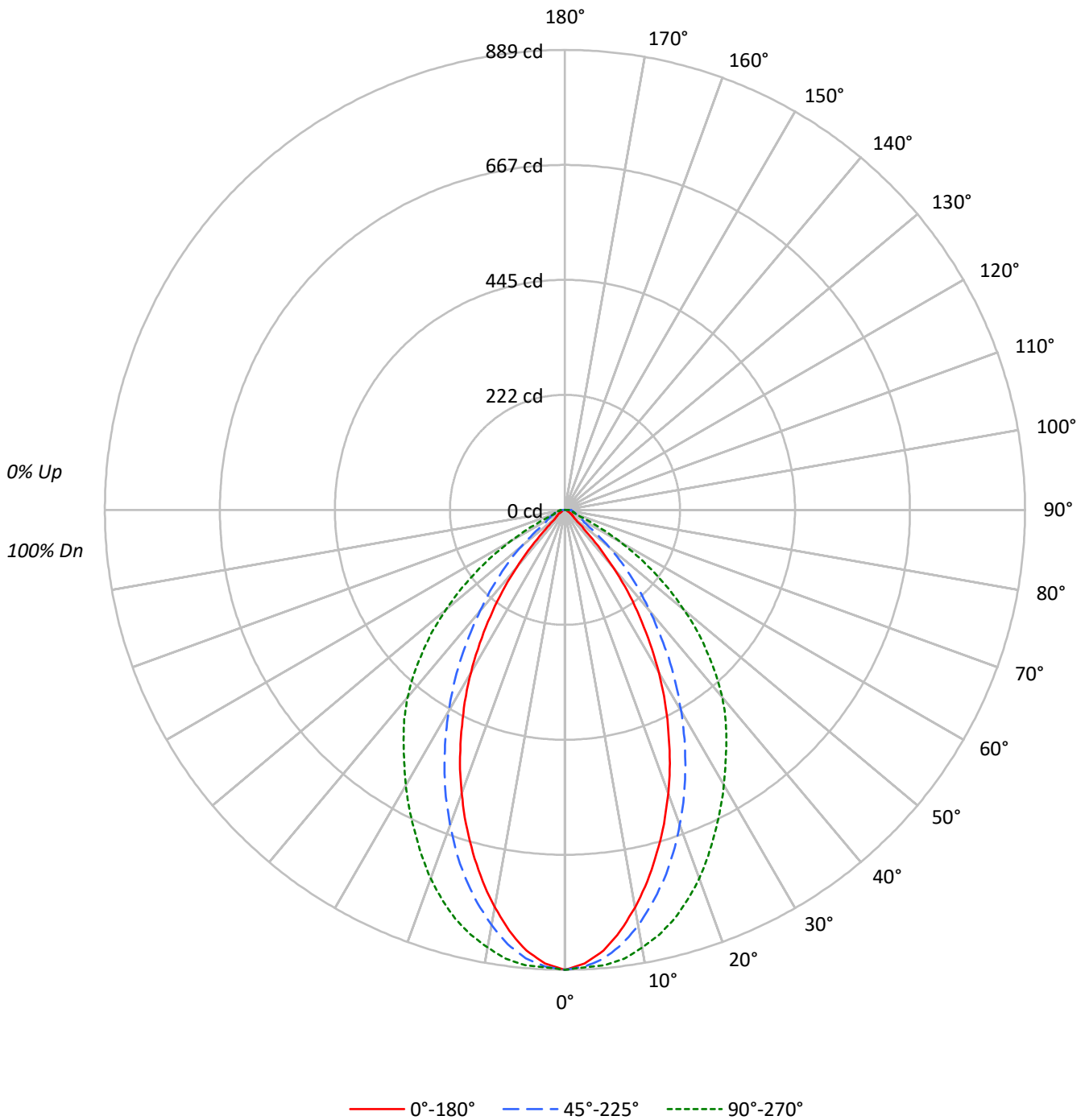
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1067.9 lumens  
Efficiency: N/A  
Efficacy: 25.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

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

	0°	45°	90°
0°	10439	10439	10439
5°	10078	10255	10415
10°	9304	9725	10244
15°	8346	8990	9948
20°	7288	8102	9478
25°	6130	7132	8895
30°	4921	6083	8331
35°	3605	5009	7794
40°	2230	3897	7252
45°	859	2934	6457
50°	422	2011	5464
55°	334	1114	4285
60°	223	925	2872
65°	189	831	1284
70°	185	745	745
75°	245	803	740
80°	365	1014	825
85°	552	1644	1105

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6457 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.5	7.6
10°-20°	208.7	19.5
20°-30°	259.0	24.3
30°-40°	232.0	21.7
40°-50°	152.5	14.3
50°-60°	76.4	7.2
60°-70°	30.2	2.8
70°-80°	16.9	1.6
80°-90°	10.6	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°	549.2	51.4
0°-40°	781.2	73.2
0°-60°	1010.2	94.6
0°-90°	1067.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1067.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	889	889	889	889	889	
5°	855	869	870	875	884	79
15°	686	708	740	790	818	191
25°	473	503	550	628	686	216
35°	252	286	349	457	544	156
45°	52	86	177	298	389	49
55°	16	19	54	147	209	15
65°	7	19	30	38	46	7
75°	5	18	18	16	16	6
85°	4	12	12	12	8	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	889.0	889.0	889.0	889.0	889.0
2.5°	878.1	890.4	883.6	883.6	884.9
5°	855.0	868.6	870.0	875.4	883.6
7.5°	821.1	838.7	846.9	863.2	875.4
10°	780.3	799.3	815.6	844.2	859.1
12.5°	735.4	754.4	778.9	818.3	841.4
15°	686.5	708.2	739.5	789.8	818.3
17.5°	636.2	657.9	696.0	753.1	789.8
20°	583.2	607.6	648.4	713.7	758.5
22.5°	530.1	557.3	600.8	671.5	723.2
25°	473.1	503.0	550.5	628.0	686.5
27.5°	418.7	449.9	500.2	584.5	651.1
30°	362.9	394.2	448.6	539.7	614.4
32.5°	305.9	341.2	398.3	497.5	577.7
35°	251.5	285.5	349.4	456.7	543.7
37.5°	198.5	232.4	299.1	417.3	509.8
40°	145.5	180.8	254.2	379.3	473.1
42.5°	95.2	131.9	214.8	341.2	432.3
45°	51.7	85.6	176.7	297.7	388.8
47.5°	28.5	46.2	142.7	256.9	346.6
50°	23.1	25.8	110.1	218.9	299.1
52.5°	19.0	21.7	78.8	182.2	255.6
55°	16.3	19.0	54.4	146.8	209.3
57.5°	13.6	16.3	43.5	112.8	164.5
60°	9.5	16.3	39.4	82.9	122.3
62.5°	8.2	16.3	34.0	57.1	81.6
65°	6.8	19.0	29.9	38.1	46.2
67.5°	5.4	19.0	25.8	24.5	24.5
70°	5.4	19.0	21.7	20.4	21.7
72.5°	5.4	20.4	20.4	19.0	19.0
75°	5.4	17.7	17.7	16.3	16.3
77.5°	5.4	16.3	16.3	15.0	15.0
80°	5.4	15.0	15.0	13.6	12.2
82.5°	5.4	13.6	13.6	12.2	10.9
85°	4.1	12.2	12.2	12.2	8.2
87.5°	4.1	10.9	12.2	10.9	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)