

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1059530

Luminaire Tested: S123RDR-H1165D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D927-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

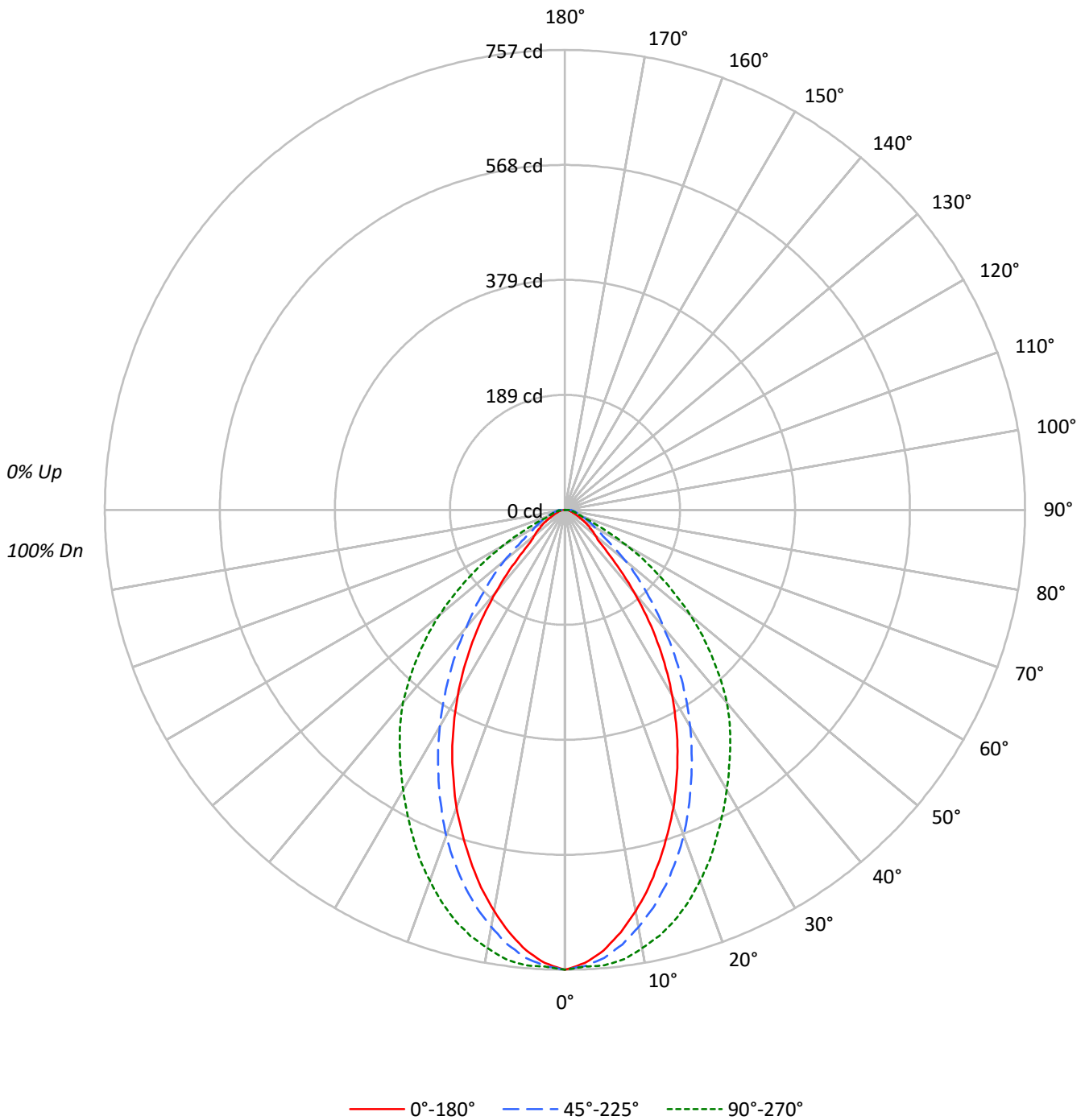
Lumens per Lamp: N/A
Luminaire Lumens: 1013.7 lumens
Efficiency: N/A
Efficacy: 27.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8888	8888	8888
5°	8584	8726	8870
10°	7997	8313	8735
15°	7281	7778	8502
20°	6517	7139	8119
25°	5684	6371	7674
30°	4780	5588	7222
35°	3802	4736	6795
40°	2710	3861	6352
45°	1614	3100	5688
50°	1191	2362	4925
55°	995	1607	3914
60°	806	1325	2750
65°	645	1136	1473
70°	532	985	910
75°	499	953	853
80°	521	1048	825
85°	741	1482	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5688 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.5	6.9
10°-20°	180.6	17.8
20°-30°	230.4	22.7
30°-40°	216.8	21.4
40°-50°	155.7	15.4
50°-60°	89.3	8.8
60°-70°	40.8	4.0
70°-80°	20.5	2.0
80°-90°	10.0	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°	480.5	47.4
0°-40°	697.3	68.8
0°-60°	942.3	93.0
0°-90°	1013.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1013.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	757	757	757	757	757	
5°	728	742	740	746	752	68
15°	599	620	640	674	699	167
25°	439	459	492	545	592	200
35°	265	284	330	406	474	164
45°	97	118	187	275	342	81
55°	49	50	78	145	191	44
65°	23	32	41	45	53	23
75°	11	22	21	19	19	12
85°	6	11	11	10	8	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	756.9	756.9	756.9	756.9	756.9
2.5°	746.9	758.0	751.4	751.4	752.5
5°	728.2	742.5	740.3	745.8	752.5
7.5°	701.6	717.1	721.5	734.8	745.8
10°	670.7	688.4	697.2	718.2	732.6
12.5°	636.5	656.3	670.7	697.2	718.2
15°	598.9	619.9	639.8	674.0	699.4
17.5°	560.2	581.2	606.6	646.4	676.2
20°	521.5	542.5	571.3	613.3	649.7
22.5°	479.6	500.5	531.5	579.0	623.2
25°	438.7	458.6	491.7	544.7	592.3
27.5°	395.6	415.5	451.9	509.4	562.4
30°	352.5	372.4	412.1	474.0	532.6
32.5°	309.4	328.2	371.3	439.8	502.8
35°	265.2	284.0	330.4	405.5	474.0
37.5°	219.9	238.7	292.8	374.6	445.3
40°	176.8	197.8	251.9	343.6	414.4
42.5°	134.8	156.9	218.8	310.5	379.0
45°	97.2	118.2	186.7	275.1	342.5
47.5°	74.0	85.1	158.0	239.8	307.2
50°	65.2	66.3	129.3	207.7	269.6
52.5°	56.4	57.5	100.6	176.8	229.8
55°	48.6	49.7	78.5	144.7	191.2
57.5°	40.9	43.1	64.1	114.9	153.6
60°	34.3	38.7	56.4	87.3	117.1
62.5°	27.6	35.4	48.6	64.1	84.0
65°	23.2	32.0	40.9	45.3	53.0
67.5°	18.8	29.8	34.3	32.0	32.0
70°	15.5	26.5	28.7	26.5	26.5
72.5°	13.3	25.4	24.3	22.1	22.1
75°	11.0	22.1	21.0	18.8	18.8
77.5°	9.9	18.8	17.7	16.6	15.5
80°	7.7	15.5	15.5	14.4	12.2
82.5°	6.6	13.3	13.3	12.2	9.9
85°	5.5	11.0	11.0	9.9	7.7
87.5°	4.4	9.9	9.9	8.8	5.5
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	7.58	8.89	7.94	9.21	9.52	14.80	16.12	15.16	16.43	16.74
	3H	8.98	10.14	9.36	10.47	10.84	15.03	16.20	15.41	16.53	16.90
	4H	9.54	10.63	9.94	10.98	11.36	15.14	16.23	15.54	16.58	16.96
	6H	9.99	11.00	10.41	11.37	11.76	15.25	16.25	15.66	16.62	17.01
	8H	10.18	11.13	10.61	11.52	11.92	15.30	16.24	15.73	16.64	17.04
	12H	10.37	11.28	10.80	11.66	12.09	15.35	16.25	15.78	16.64	17.07
4H	2H	8.65	9.74	9.05	10.09	10.47	14.76	15.85	15.16	16.20	16.58
	3H	10.34	11.23	10.75	11.63	12.04	15.13	16.02	15.54	16.42	16.83
	4H	11.17	11.97	11.61	12.39	12.83	15.31	16.11	15.75	16.53	16.97
	6H	11.83	12.52	12.29	12.97	13.43	15.53	16.23	16.00	16.67	17.14
	8H	12.08	12.73	12.55	13.18	13.65	15.63	16.28	16.10	16.73	17.20
	12H	12.34	12.91	12.82	13.39	13.87	15.75	16.32	16.24	16.80	17.28
8H	4H	11.61	12.25	12.08	12.70	13.17	15.36	16.00	15.82	16.45	16.92
	6H	12.56	13.09	13.06	13.59	14.07	15.69	16.22	16.19	16.72	17.20
	8H	13.03	13.50	13.55	14.02	14.51	15.88	16.36	16.40	16.87	17.36
	12H	13.50	13.92	14.02	14.42	14.99	16.11	16.53	16.63	17.03	17.60
12H	4H	11.67	12.24	12.15	12.72	13.20	15.35	15.92	15.83	16.40	16.88
	6H	12.71	13.19	13.23	13.70	14.19	15.72	16.19	16.24	16.71	17.20
	8H	13.30	13.72	13.82	14.22	14.79	15.98	16.40	16.49	16.89	17.47