

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: P1059566

Luminaire Tested: S123RDR-H1165D950-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059566
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-H1165D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

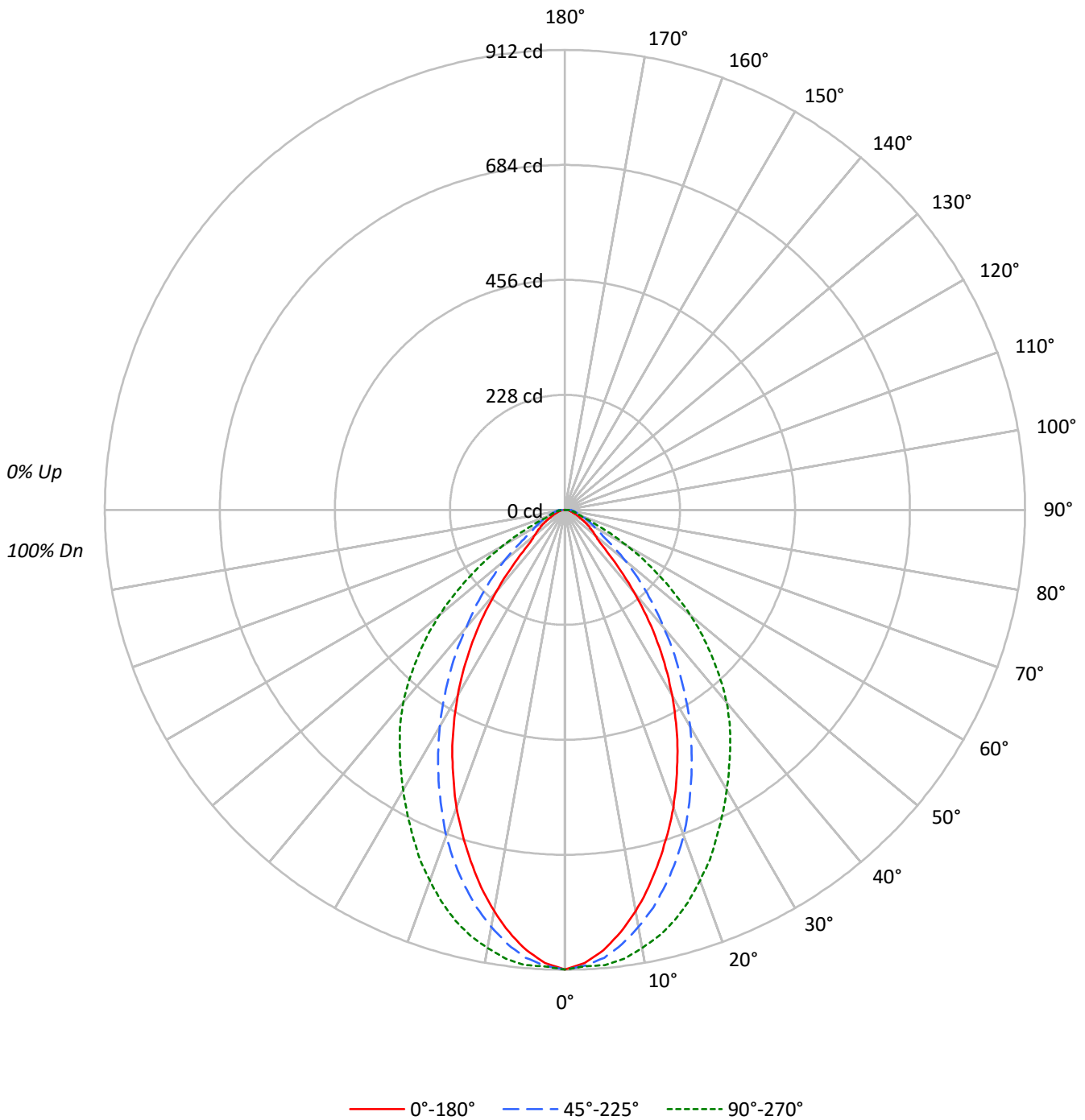
Lumens per Lamp: N/A
Luminaire Lumens: 1220.7 lumens
Efficiency: N/A
Efficacy: 33.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	10703	10703	10703
5°	10336	10508	10682
10°	9631	10011	10519
15°	8767	9367	10240
20°	7849	8597	9777
25°	6845	7671	9240
30°	5756	6729	8697
35°	4579	5704	8184
40°	3263	4651	7649
45°	1945	3735	6850
50°	1434	2844	5932
55°	1198	1935	4713
60°	970	1595	3314
65°	775	1367	1775
70°	639	1188	1095
75°	603	1148	1025
80°	629	1258	987
85°	903	1792	1253

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6850 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.7	6.9
10°-20°	217.5	17.8
20°-30°	277.4	22.7
30°-40°	261.0	21.4
40°-50°	187.6	15.4
50°-60°	107.5	8.8
60°-70°	49.2	4.0
70°-80°	24.7	2.0
80°-90°	12.1	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°	578.7	47.4
0°-40°	839.7	68.8
0°-60°	1134.8	93.0
0°-90°	1220.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1220.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	877	894	892	898	906	81
15°	721	746	770	812	842	201
25°	528	552	592	656	713	241
35°	319	342	398	488	571	198
45°	117	142	225	331	412	98
55°	58	60	94	174	230	53
65°	28	39	49	55	64	28
75°	13	27	25	23	23	15
85°	7	13	13	12	9	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	911.5	911.5	911.5	911.5	911.5
2.5°	899.5	912.8	904.9	904.9	906.2
5°	876.9	894.2	891.5	898.2	906.2
7.5°	845.0	863.6	868.9	884.9	898.2
10°	807.7	829.0	839.6	864.9	882.2
12.5°	766.5	790.4	807.7	839.6	864.9
15°	721.2	746.5	770.5	811.7	842.3
17.5°	674.6	699.9	730.5	778.4	814.4
20°	628.1	653.4	688.0	738.5	782.4
22.5°	577.5	602.8	640.0	697.3	750.5
25°	528.3	552.2	592.1	656.0	713.2
27.5°	476.4	500.3	544.2	613.4	677.3
30°	424.5	448.4	496.3	570.9	641.4
32.5°	372.6	395.2	447.1	529.6	605.5
35°	319.4	342.0	397.9	488.4	570.9
37.5°	264.8	287.4	352.6	451.1	536.3
40°	212.9	238.2	303.4	413.8	499.0
42.5°	162.3	189.0	263.5	373.9	456.4
45°	117.1	142.4	224.9	331.3	412.5
47.5°	89.2	102.5	190.3	288.8	369.9
50°	78.5	79.8	155.7	250.2	324.7
52.5°	67.9	69.2	121.1	212.9	276.8
55°	58.5	59.9	94.5	174.3	230.2
57.5°	49.2	51.9	77.2	138.4	185.0
60°	41.3	46.6	67.9	105.1	141.1
62.5°	33.3	42.6	58.5	77.2	101.1
65°	27.9	38.6	49.2	54.6	63.9
67.5°	22.6	35.9	41.3	38.6	38.6
70°	18.6	31.9	34.6	31.9	31.9
72.5°	16.0	30.6	29.3	26.6	26.6
75°	13.3	26.6	25.3	22.6	22.6
77.5°	12.0	22.6	21.3	20.0	18.6
80°	9.3	18.6	18.6	17.3	14.6
82.5°	8.0	16.0	16.0	14.6	12.0
85°	6.7	13.3	13.3	12.0	9.3
87.5°	5.3	12.0	12.0	10.6	6.7
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	8.22	9.54	8.59	9.85	10.17	15.44	16.76	15.81	17.07	17.39
	3H	9.62	10.79	10.00	11.12	11.48	15.68	16.85	16.06	17.18	17.54
	4H	10.18	11.27	10.58	11.62	12.00	15.79	16.88	16.19	17.23	17.61
	6H	10.64	11.64	11.05	12.01	12.41	15.89	16.90	16.31	17.27	17.66
	8H	10.83	11.78	11.26	12.17	12.57	15.94	16.89	16.37	17.28	17.69
	12H	11.02	11.93	11.45	12.31	12.74	15.99	16.90	16.43	17.28	17.71
4H	2H	9.29	10.38	9.70	10.73	11.12	15.41	16.49	15.81	16.85	17.23
	3H	10.98	11.87	11.39	12.28	12.68	15.77	16.67	16.19	17.07	17.47
	4H	11.81	12.61	12.25	13.03	13.48	15.96	16.76	16.39	17.17	17.62
	6H	12.47	13.16	12.94	13.61	14.08	16.18	16.87	16.64	17.32	17.78
	8H	12.73	13.37	13.20	13.82	14.29	16.28	16.92	16.75	17.37	17.84
	12H	12.99	13.56	13.47	14.04	14.51	16.40	16.97	16.88	17.45	17.92
8H	4H	12.25	12.90	12.72	13.34	13.81	16.00	16.65	16.47	17.09	17.56
	6H	13.20	13.73	13.70	14.23	14.71	16.33	16.86	16.84	17.36	17.84
	8H	13.67	14.14	14.19	14.66	15.15	16.52	17.00	17.04	17.52	18.01
	12H	14.15	14.57	14.66	15.07	15.64	16.76	17.18	17.27	17.67	18.24
12H	4H	12.31	12.88	12.80	13.36	13.84	15.99	16.57	16.48	17.05	17.52
	6H	13.35	13.83	13.87	14.34	14.83	16.36	16.84	16.88	17.35	17.84
	8H	13.94	14.37	14.46	14.86	15.43	16.62	17.04	17.13	17.54	18.11