

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: P1059503

Luminaire Tested: S123RDR-H1165D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059503
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-H1165D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

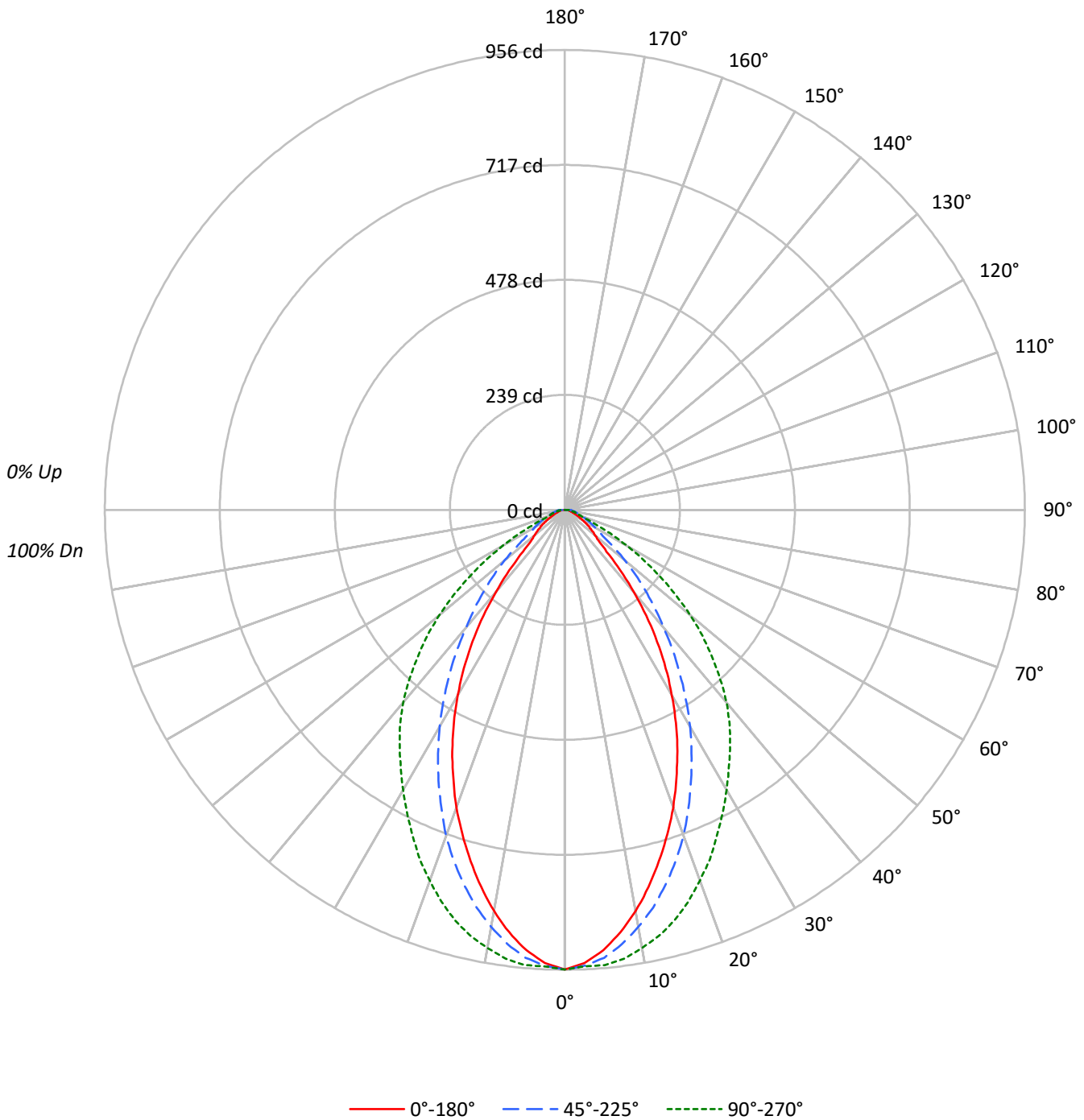
Lumens per Lamp: N/A
Luminaire Lumens: 1279.6 lumens
Efficiency: N/A
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11220	11220	11220
5°	10835	11015	11197
10°	10096	10494	11027
15°	9190	9818	10733
20°	8227	9011	10249
25°	7174	8042	9686
30°	6032	7055	9116
35°	4799	5979	8578
40°	3421	4875	8018
45°	2038	3914	7181
50°	1503	2981	6217
55°	1257	2027	4940
60°	1015	1670	3473
65°	814	1434	1862
70°	669	1246	1150
75°	631	1202	1075
80°	663	1319	1035
85°	943	1873	1320

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7181 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	6.9
10°-20°	228.0	17.8
20°-30°	290.8	22.7
30°-40°	273.6	21.4
40°-50°	196.6	15.4
50°-60°	112.7	8.8
60°-70°	51.5	4.0
70°-80°	25.9	2.0
80°-90°	12.6	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°	606.6	47.4
0°-40°	880.2	68.8
0°-60°	1189.5	93.0
0°-90°	1279.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1279.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	919	937	934	942	950	85
15°	756	782	808	851	883	211
25°	554	579	621	688	748	253
35°	335	358	417	512	598	207
45°	123	149	236	347	432	103
55°	61	63	99	183	241	55
65°	29	40	52	57	67	29
75°	14	28	26	24	24	15
85°	7	14	14	13	10	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	955.5	955.5	955.5	955.5	955.5
2.5°	942.9	956.9	948.5	948.5	949.9
5°	919.2	937.3	934.5	941.5	949.9
7.5°	885.7	905.2	910.8	927.6	941.5
10°	846.7	869.0	880.1	906.6	924.8
12.5°	803.4	828.5	846.7	880.1	906.6
15°	756.0	782.5	807.6	850.8	882.9
17.5°	707.2	733.7	765.8	816.0	853.6
20°	658.4	684.9	721.1	774.1	820.2
22.5°	605.4	631.9	670.9	730.9	786.7
25°	553.7	578.9	620.7	687.6	747.6
27.5°	499.3	524.5	570.5	643.0	710.0
30°	444.9	470.1	520.3	598.4	672.3
32.5°	390.6	414.3	468.7	555.1	634.6
35°	334.8	358.5	417.1	511.9	598.4
37.5°	277.6	301.3	369.6	472.8	562.1
40°	223.2	249.7	318.0	433.8	523.1
42.5°	170.2	198.1	276.2	391.9	478.4
45°	122.7	149.2	235.7	347.3	432.4
47.5°	93.5	107.4	199.5	302.7	387.8
50°	82.3	83.7	163.2	262.2	340.3
52.5°	71.1	72.5	126.9	223.2	290.1
55°	61.4	62.8	99.0	182.7	241.3
57.5°	51.6	54.4	80.9	145.1	193.9
60°	43.2	48.8	71.1	110.2	147.9
62.5°	34.9	44.6	61.4	80.9	106.0
65°	29.3	40.4	51.6	57.2	67.0
67.5°	23.7	37.7	43.2	40.4	40.4
70°	19.5	33.5	36.3	33.5	33.5
72.5°	16.7	32.1	30.7	27.9	27.9
75°	13.9	27.9	26.5	23.7	23.7
77.5°	12.6	23.7	22.3	20.9	19.5
80°	9.8	19.5	19.5	18.1	15.3
82.5°	8.4	16.7	16.7	15.3	12.6
85°	7.0	13.9	13.9	12.6	9.8
87.5°	5.6	12.6	12.6	11.2	7.0
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	8.38	9.70	8.75	10.01	10.33	15.61	16.93	15.97	17.24	17.55
	3H	9.78	10.95	10.16	11.28	11.65	15.84	17.01	16.22	17.34	17.71
	4H	10.34	11.43	10.75	11.78	12.17	15.95	17.04	16.35	17.39	17.77
	6H	10.81	11.81	11.22	12.18	12.57	16.06	17.06	16.47	17.43	17.82
	8H	10.99	11.94	11.42	12.33	12.74	16.11	17.05	16.54	17.45	17.85
	12H	11.19	12.09	11.62	12.48	12.91	16.16	17.06	16.59	17.45	17.88
4H	2H	9.46	10.55	9.86	10.90	11.28	15.57	16.66	15.97	17.01	17.39
	3H	11.15	12.04	11.56	12.45	12.85	15.94	16.83	16.35	17.23	17.64
	4H	11.98	12.78	12.42	13.20	13.64	16.12	16.92	16.56	17.34	17.78
	6H	12.64	13.33	13.10	13.78	14.24	16.34	17.03	16.81	17.48	17.95
	8H	12.90	13.54	13.36	13.99	14.46	16.44	17.09	16.91	17.54	18.01
	12H	13.15	13.72	13.64	14.21	14.68	16.56	17.13	17.05	17.62	18.09
8H	4H	12.42	13.06	12.89	13.51	13.98	16.17	16.81	16.63	17.26	17.73
	6H	13.37	13.90	13.87	14.39	14.87	16.50	17.03	17.00	17.52	18.00
	8H	13.83	14.31	14.35	14.82	15.32	16.69	17.16	17.21	17.68	18.17
	12H	14.31	14.73	14.82	15.23	15.80	16.92	17.34	17.44	17.84	18.41
12H	4H	12.48	13.05	12.96	13.53	14.00	16.16	16.73	16.64	17.21	17.69
	6H	13.51	13.99	14.04	14.51	15.00	16.52	17.00	17.04	17.52	18.01
	8H	14.11	14.53	14.62	15.02	15.59	16.78	17.21	17.30	17.70	18.27