

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: P1059548

Luminaire Tested: S123RDR-H1165D935-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059548
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-H1165D935-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, 90 CRI LEDS
Ballast/Driver: -

Summary

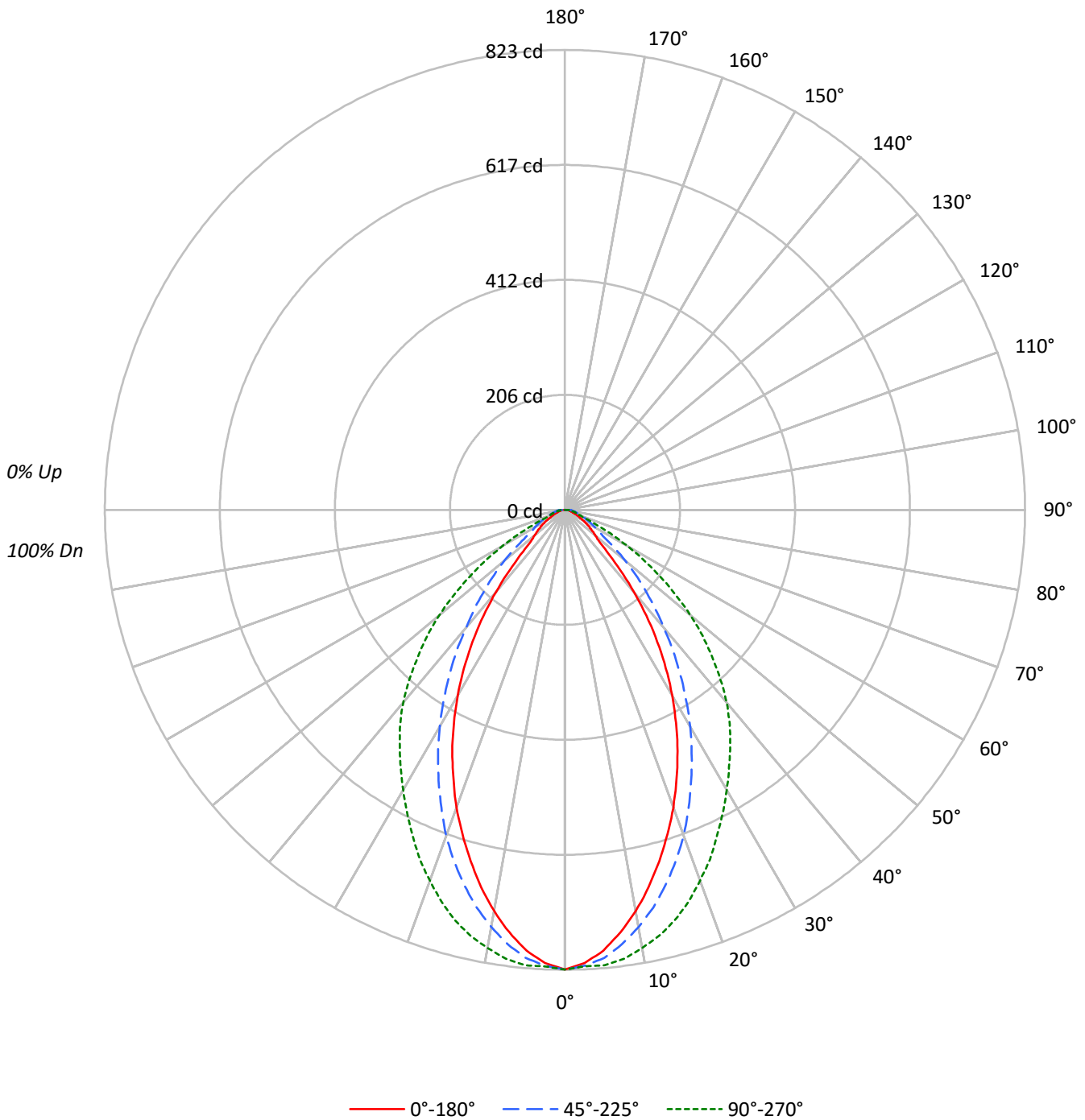
Lumens per Lamp: N/A
Luminaire Lumens: 1101.7 lumens
Efficiency: N/A
Efficacy: 30.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	59	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°	9659	9659	9659
5°	9328	9484	9640
10°	8692	9036	9494
15°	7913	8453	9241
20°	7083	7759	8825
25°	6178	6924	8340
30°	5194	6074	7849
35°	4131	5148	7385
40°	2946	4197	6904
45°	1755	3371	6183
50°	1295	2567	5353
55°	1081	1746	4254
60°	874	1437	2990
65°	700	1234	1600
70°	577	1071	989
75°	544	1034	926
80°	568	1136	893
85°	808	1617	1132

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6183 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	6.9
10°-20°	196.3	17.8
20°-30°	250.4	22.7
30°-40°	235.6	21.4
40°-50°	169.3	15.4
50°-60°	97.0	8.8
60°-70°	44.4	4.0
70°-80°	22.3	2.0
80°-90°	10.9	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°	522.3	47.4
0°-40°	757.9	68.8
0°-60°	1024.2	93.0
0°-90°	1101.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1101.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	791	807	805	811	818	74
15°	651	674	695	733	760	182
25°	477	498	534	592	644	218
35°	288	309	359	441	515	178
45°	106	128	203	299	372	89
55°	53	54	85	157	208	47
65°	25	35	44	49	58	25
75°	12	24	23	20	20	13
85°	6	12	12	11	8	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	822.6	822.6	822.6	822.6	822.6
2.5°	811.8	823.8	816.6	816.6	817.8
5°	791.4	807.0	804.6	810.6	817.8
7.5°	762.6	779.4	784.2	798.6	810.6
10°	729.0	748.2	757.8	780.6	796.2
12.5°	691.7	713.4	729.0	757.8	780.6
15°	650.9	673.7	695.3	732.6	760.2
17.5°	608.9	631.7	659.3	702.6	735.0
20°	566.8	589.7	620.9	666.5	706.2
22.5°	521.2	544.0	577.7	629.3	677.3
25°	476.8	498.4	534.4	592.1	643.7
27.5°	429.9	451.6	491.2	553.6	611.3
30°	383.1	404.7	448.0	515.2	578.9
32.5°	336.3	356.7	403.5	478.0	546.4
35°	288.2	308.6	359.1	440.7	515.2
37.5°	239.0	259.4	318.2	407.1	484.0
40°	192.2	215.0	273.8	373.5	450.4
42.5°	146.5	170.5	237.8	337.5	411.9
45°	105.7	128.5	203.0	299.0	372.3
47.5°	80.5	92.5	171.7	260.6	333.9
50°	70.9	72.1	140.5	225.8	293.0
52.5°	61.2	62.4	109.3	192.2	249.8
55°	52.8	54.0	85.3	157.3	207.8
57.5°	44.4	46.8	69.7	124.9	166.9
60°	37.2	42.0	61.2	94.9	127.3
62.5°	30.0	38.4	52.8	69.7	91.3
65°	25.2	34.8	44.4	49.2	57.6
67.5°	20.4	32.4	37.2	34.8	34.8
70°	16.8	28.8	31.2	28.8	28.8
72.5°	14.4	27.6	26.4	24.0	24.0
75°	12.0	24.0	22.8	20.4	20.4
77.5°	10.8	20.4	19.2	18.0	16.8
80°	8.4	16.8	16.8	15.6	13.2
82.5°	7.2	14.4	14.4	13.2	10.8
85°	6.0	12.0	12.0	10.8	8.4
87.5°	4.8	10.8	10.8	9.6	6.0
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	7.86	9.18	8.22	9.49	9.80	15.09	16.41	15.45	16.72	17.03
	3H	9.26	10.43	9.64	10.76	11.12	15.32	16.49	15.70	16.82	17.19
	4H	9.82	10.91	10.22	11.26	11.64	15.43	16.52	15.83	16.87	17.25
	6H	10.28	11.28	10.70	11.65	12.05	15.54	16.54	15.95	16.91	17.30
	8H	10.47	11.42	10.90	11.81	12.21	15.58	16.53	16.01	16.92	17.33
	12H	10.66	11.56	11.09	11.95	12.38	15.64	16.54	16.07	16.93	17.36
4H	2H	8.93	10.02	9.34	10.37	10.76	15.05	16.14	15.45	16.49	16.87
	3H	10.62	11.51	11.04	11.92	12.32	15.42	16.31	15.83	16.71	17.12
	4H	11.46	12.25	11.89	12.67	13.12	15.60	16.40	16.03	16.82	17.26
	6H	12.11	12.81	12.58	13.25	13.72	15.82	16.51	16.28	16.96	17.42
	8H	12.37	13.01	12.84	13.46	13.93	15.92	16.57	16.39	17.01	17.49
	12H	12.62	13.20	13.11	13.68	14.15	16.04	16.61	16.52	17.09	17.57
8H	4H	11.89	12.54	12.36	12.98	13.45	15.64	16.29	16.11	16.74	17.21
	6H	12.84	13.37	13.34	13.87	14.35	15.98	16.51	16.48	17.00	17.48
	8H	13.31	13.78	13.83	14.30	14.79	16.17	16.64	16.69	17.16	17.65
	12H	13.79	14.21	14.30	14.70	15.27	16.40	16.82	16.91	17.32	17.89
12H	4H	11.95	12.52	12.44	13.01	13.48	15.64	16.21	16.12	16.69	17.17
	6H	12.99	13.47	13.51	13.98	14.47	16.00	16.48	16.52	16.99	17.49
	8H	13.58	14.01	14.10	14.50	15.07	16.26	16.68	16.78	17.18	17.75