

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: P1059502

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059502
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
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-B
Description: DEFINE 3 BLACK 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

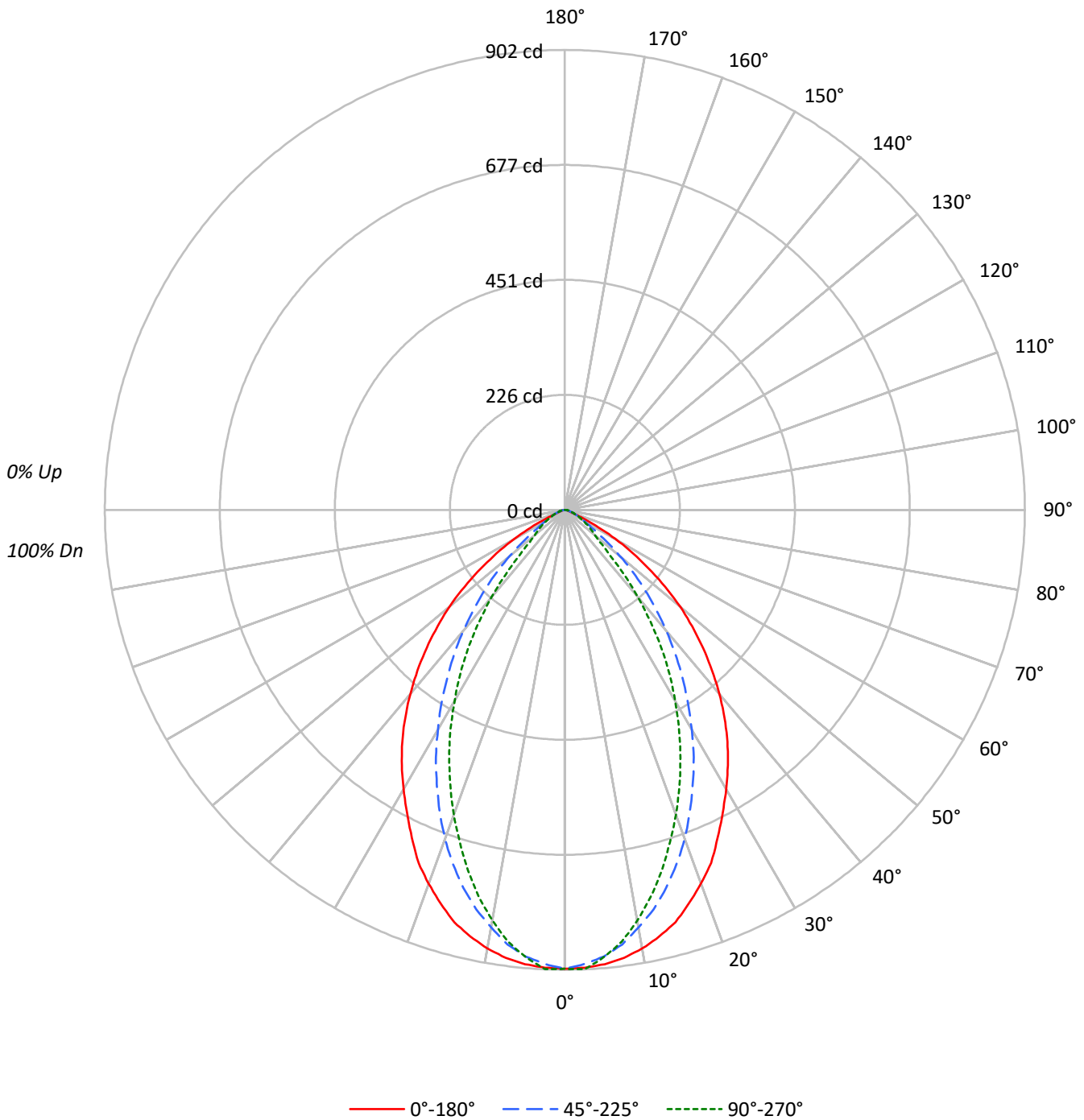
Lumens per Lamp: N/A
Luminaire Lumens: 1162.0 lumens
Efficiency: N/A
Efficacy: 31.8 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42				42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10569	10569	10569
5°	10544	10363	10380
10°	10416	9918	9752
15°	10180	9333	8910
20°	9751	8584	7957
25°	9189	7691	6950
30°	8577	6744	5856
35°	7969	5753	4713
40°	7220	4741	3417
45°	6364	3678	2059
50°	5396	2570	1399
55°	4107	1540	1169
60°	2684	982	916
65°	1123	736	736
70°	381	525	573
75°	318	381	445
80°	189	284	379
85°	189	189	377

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6364 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.1	7.2
10°-20°	217.6	18.7
20°-30°	279.0	24.0
30°-40°	261.8	22.5
40°-50°	182.6	15.7
50°-60°	94.4	8.1
60°-70°	32.3	2.8
70°-80°	9.2	0.8
80°-90°	2.0	0.2
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°	579.7	49.9
0°-40°	841.5	72.4
0°-60°	1118.5	96.3
0°-90°	1162.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1162.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	900	900	900	900	900	
5°	894	893	879	883	881	85
15°	837	816	768	743	733	235
25°	709	665	594	553	536	326
35°	556	488	401	350	329	346
45°	383	314	222	153	124	295
55°	201	150	75	58	57	181
65°	40	35	26	25	26	48
75°	7	7	8	10	10	7
85°	1	1	1	1	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	900.1	900.1	900.1	900.1	900.1
2.5°	898.7	900.1	891.7	900.1	901.5
5°	894.5	893.1	879.2	883.4	880.6
7.5°	886.2	882.0	859.7	854.1	854.1
10°	873.6	865.3	831.8	822.1	817.9
12.5°	856.9	845.8	802.6	784.5	777.5
15°	837.4	816.5	767.7	742.7	732.9
17.5°	809.5	781.7	728.7	699.5	684.1
20°	780.3	745.4	686.9	652.1	636.8
22.5°	749.6	707.8	640.9	603.3	586.6
25°	709.2	664.6	593.6	553.2	536.4
27.5°	670.2	622.8	547.6	501.6	484.9
30°	632.6	576.8	497.4	452.8	431.9
32.5°	595.0	532.3	450.1	401.3	381.8
35°	555.9	487.7	401.3	349.7	328.8
37.5°	514.1	444.5	355.3	299.6	274.5
40°	471.0	398.5	309.3	246.6	222.9
42.5°	427.8	356.7	263.3	199.2	171.4
45°	383.2	313.5	221.5	153.3	124.0
47.5°	338.6	270.3	181.1	111.5	93.4
50°	295.4	229.9	140.7	82.2	76.6
52.5°	248.0	190.9	105.9	68.3	66.9
55°	200.6	150.5	75.2	58.5	57.1
57.5°	158.8	117.0	54.3	48.8	47.4
60°	114.3	83.6	41.8	40.4	39.0
62.5°	75.2	57.1	33.4	32.0	32.0
65°	40.4	34.8	26.5	25.1	26.5
67.5°	16.7	19.5	19.5	20.9	20.9
70°	11.1	12.5	15.3	16.7	16.7
72.5°	8.4	9.8	11.1	12.5	12.5
75°	7.0	7.0	8.4	9.8	9.8
77.5°	4.2	5.6	5.6	7.0	8.4
80°	2.8	4.2	4.2	5.6	5.6
82.5°	1.4	2.8	2.8	4.2	4.2
85°	1.4	1.4	1.4	1.4	2.8
87.5°	0.0	0.0	0.0	0.0	1.4
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	14.52	15.78	14.89	16.09	16.41	8.04	9.29	8.40	9.61	9.92
	3H	14.48	15.58	14.86	15.92	16.28	8.81	9.92	9.19	10.25	10.61
	4H	14.42	15.45	14.83	15.80	16.19	9.01	10.04	9.41	10.39	10.78
	6H	14.35	15.30	14.77	15.67	16.06	9.16	10.10	9.57	10.47	10.87
	8H	14.31	15.20	14.74	15.59	16.00	9.19	10.08	9.62	10.48	10.88
	12H	14.27	15.12	14.70	15.50	15.93	9.21	10.06	9.64	10.45	10.88
4H	2H	14.37	15.40	14.77	15.75	16.14	8.29	9.32	8.70	9.67	10.06
	3H	14.35	15.19	14.77	15.59	16.00	9.20	10.03	9.61	10.44	10.84
	4H	14.30	15.05	14.74	15.47	15.91	9.47	10.21	9.91	10.63	11.08
	6H	14.25	14.88	14.71	15.33	15.80	9.69	10.33	10.15	10.77	11.24
	8H	14.19	14.79	14.66	15.24	15.71	9.75	10.35	10.22	10.79	11.27
	12H	14.15	14.67	14.64	15.16	15.63	9.79	10.31	10.28	10.80	11.27
8H	4H	14.19	14.79	14.66	15.23	15.71	9.45	10.05	9.93	10.50	10.97
	6H	14.13	14.61	14.63	15.11	15.59	9.73	10.21	10.23	10.71	11.19
	8H	14.08	14.51	14.60	15.03	15.52	9.84	10.27	10.36	10.79	11.28
	12H	14.04	14.42	14.56	14.92	15.49	9.91	10.29	10.43	10.79	11.36
12H	4H	14.14	14.67	14.63	15.15	15.63	9.42	9.94	9.91	10.43	10.90
	6H	14.07	14.51	14.59	15.02	15.52	9.69	10.12	10.21	10.64	11.13
	8H	14.04	14.43	14.56	14.92	15.49	9.83	10.21	10.35	10.71	11.28