

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: P1059538

Luminaire Tested: S123RDR-H1165D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059538
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-H1165D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

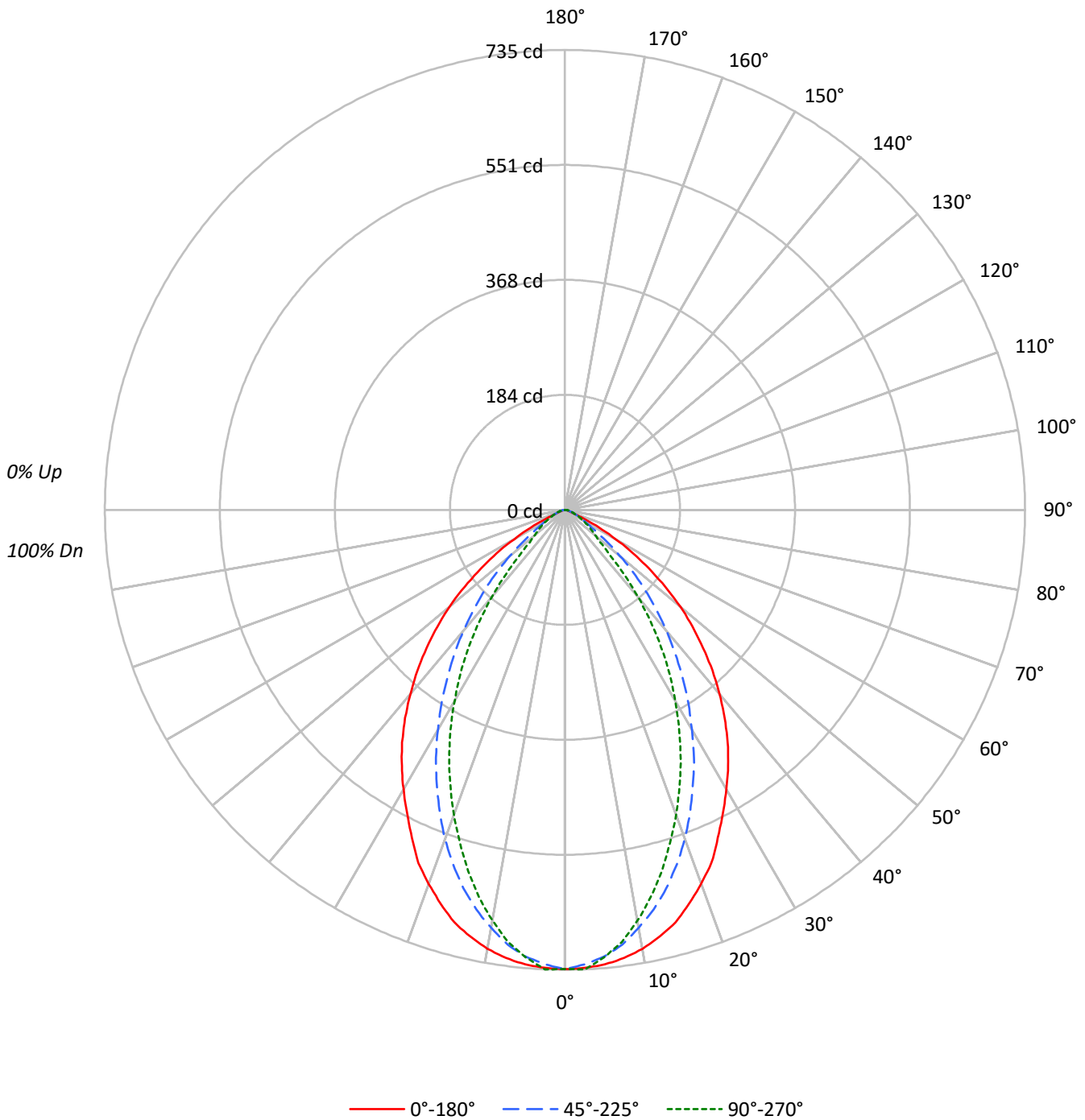
Lumens per Lamp: N/A
Luminaire Lumens: 947.4 lumens
Efficiency: N/A
Efficacy: 26.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	71	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	49	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°	8618	8618	8618
5°	8596	8449	8462
10°	8493	8087	7951
15°	8299	7609	7264
20°	7950	6998	6487
25°	7491	6270	5667
30°	6992	5498	4775
35°	6498	4690	3843
40°	5886	3866	2787
45°	5188	2999	1679
50°	4399	2095	1142
55°	3349	1255	954
60°	2189	801	747
65°	914	600	600
70°	312	429	467
75°	259	309	363
80°	156	230	304
85°	148	148	310

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5188 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	7.2
10°-20°	177.4	18.7
20°-30°	227.5	24.0
30°-40°	213.5	22.5
40°-50°	148.9	15.7
50°-60°	77.0	8.1
60°-70°	26.3	2.8
70°-80°	7.5	0.8
80°-90°	1.6	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°	472.6	49.9
0°-40°	686.1	72.4
0°-60°	912.0	96.3
0°-90°	947.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	947.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	729	728	717	720	718	69
15°	683	666	626	606	598	191
25°	578	542	484	451	437	266
35°	453	398	327	285	268	282
45°	312	256	181	125	101	240
55°	164	123	61	48	47	147
65°	33	28	22	20	22	39
75°	6	6	7	8	8	6
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	733.9	733.9	733.9	733.9	733.9
2.5°	732.7	733.9	727.0	733.9	735.0
5°	729.3	728.2	716.8	720.2	717.9
7.5°	722.5	719.1	700.9	696.4	696.4
10°	712.3	705.5	678.2	670.2	666.8
12.5°	698.6	689.5	654.3	639.6	633.9
15°	682.7	665.7	625.9	605.5	597.5
17.5°	660.0	637.3	594.1	570.3	557.8
20°	636.2	607.8	560.0	531.6	519.1
22.5°	611.2	577.1	522.6	491.9	478.3
25°	578.2	541.9	483.9	451.0	437.4
27.5°	546.4	507.8	446.4	409.0	395.3
30°	515.7	470.3	405.5	369.2	352.2
32.5°	485.1	433.9	366.9	327.2	311.3
35°	453.3	397.6	327.2	285.1	268.1
37.5°	419.2	362.4	289.7	244.2	223.8
40°	384.0	324.9	252.2	201.1	181.8
42.5°	348.7	290.8	214.7	162.4	139.7
45°	312.4	255.6	180.6	125.0	101.1
47.5°	276.0	220.4	147.7	90.9	76.1
50°	240.8	187.4	114.7	67.0	62.5
52.5°	202.2	155.6	86.3	55.7	54.5
55°	163.6	122.7	61.3	47.7	46.6
57.5°	129.5	95.4	44.3	39.8	38.6
60°	93.2	68.2	34.1	32.9	31.8
62.5°	61.3	46.6	27.3	26.1	26.1
65°	32.9	28.4	21.6	20.4	21.6
67.5°	13.6	15.9	15.9	17.0	17.0
70°	9.1	10.2	12.5	13.6	13.6
72.5°	6.8	8.0	9.1	10.2	10.2
75°	5.7	5.7	6.8	8.0	8.0
77.5°	3.4	4.5	4.5	5.7	6.8
80°	2.3	3.4	3.4	4.5	4.5
82.5°	1.1	2.3	2.3	3.4	3.4
85°	1.1	1.1	1.1	1.1	2.3
87.5°	0.0	0.0	0.0	0.0	1.1
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	13.81	15.07	14.18	15.39	15.70	7.33	8.59	7.69	8.90	9.21
	3H	13.77	14.88	14.15	15.21	15.57	8.10	9.20	8.48	9.54	9.90
	4H	13.72	14.74	14.12	15.10	15.48	8.30	9.33	8.70	9.68	10.07
	6H	13.64	14.59	14.06	14.96	15.35	8.44	9.38	8.86	9.76	10.15
	8H	13.60	14.49	14.03	14.88	15.29	8.48	9.37	8.91	9.76	10.17
	12H	13.56	14.41	13.99	14.79	15.22	8.49	9.35	8.93	9.73	10.16
4H	2H	13.66	14.69	14.06	15.04	15.43	7.58	8.61	7.99	8.96	9.35
	3H	13.65	14.48	14.06	14.89	15.29	8.49	9.32	8.90	9.72	10.13
	4H	13.59	14.34	14.03	14.76	15.20	8.76	9.50	9.20	9.92	10.37
	6H	13.54	14.18	14.00	14.62	15.09	8.97	9.61	9.44	10.06	10.53
	8H	13.48	14.08	13.96	14.53	15.00	9.03	9.63	9.51	10.08	10.55
	12H	13.44	13.96	13.93	14.45	14.92	9.07	9.60	9.56	10.08	10.56
8H	4H	13.48	14.08	13.95	14.52	15.00	8.74	9.34	9.21	9.79	10.26
	6H	13.42	13.90	13.92	14.40	14.88	9.01	9.49	9.51	9.99	10.47
	8H	13.37	13.80	13.89	14.32	14.81	9.12	9.55	9.64	10.07	10.56
	12H	13.33	13.71	13.85	14.21	14.78	9.19	9.57	9.71	10.07	10.64
12H	4H	13.44	13.96	13.92	14.44	14.92	8.71	9.23	9.19	9.71	10.19
	6H	13.36	13.80	13.89	14.31	14.81	8.97	9.41	9.50	9.92	10.42
	8H	13.33	13.72	13.85	14.21	14.79	9.11	9.49	9.62	9.99	10.56