

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: P1059565

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059565
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-H1165D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

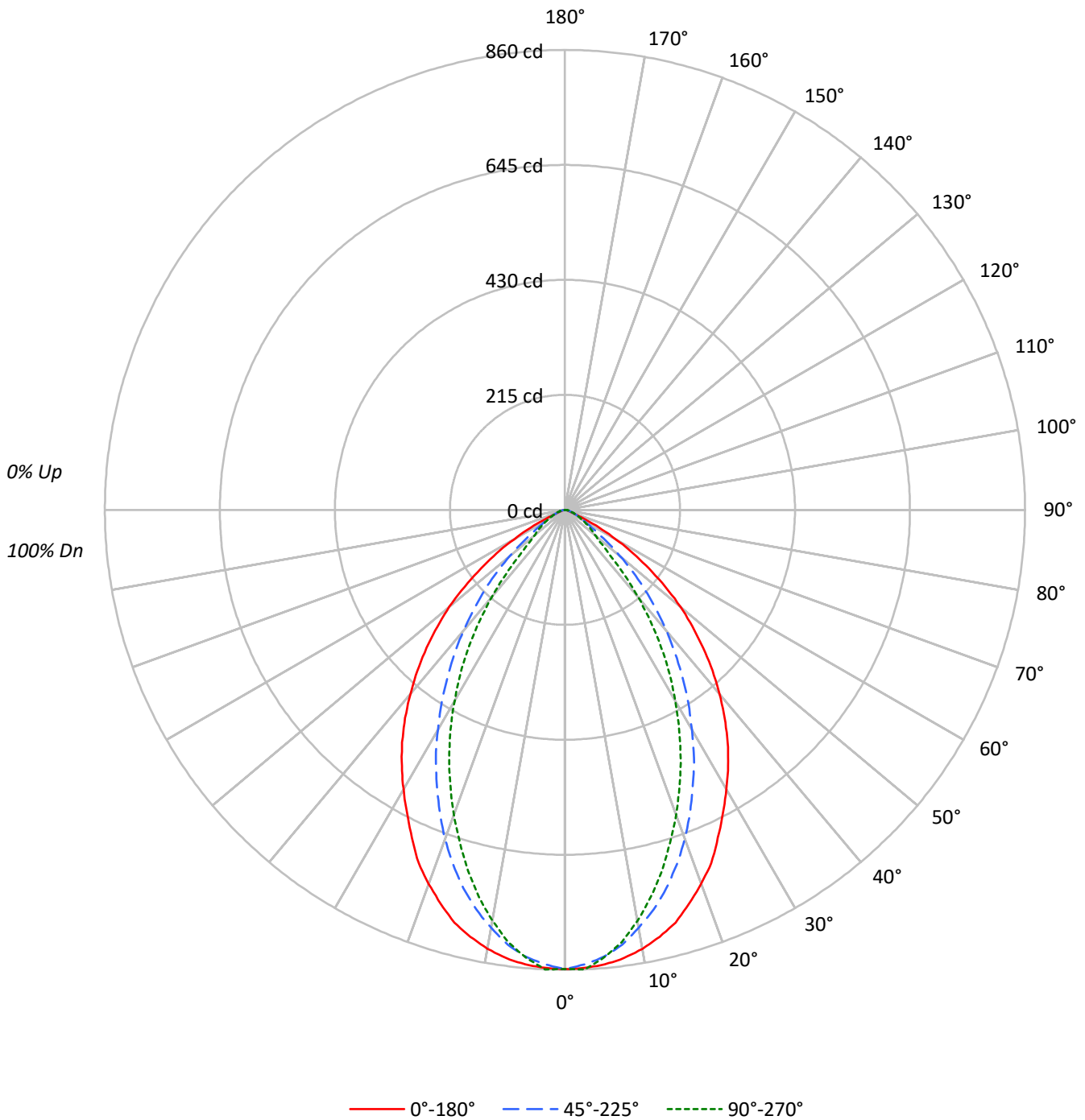
Lumens per Lamp: N/A
Luminaire Lumens: 1108.6 lumens
Efficiency: N/A
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10083	10083	10083
5°	10059	9887	9903
10°	9937	9463	9304
15°	9712	8904	8500
20°	9302	8189	7591
25°	8766	7337	6631
30°	8183	6434	5588
35°	7603	5487	4497
40°	6887	4523	3260
45°	6070	3511	1965
50°	5148	2453	1335
55°	3918	1470	1116
60°	2560	937	874
65°	1070	703	703
70°	364	501	549
75°	299	363	422
80°	183	270	358
85°	175	175	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6070 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.3	7.2
10°-20°	207.6	18.7
20°-30°	266.2	24.0
30°-40°	249.8	22.5
40°-50°	174.2	15.7
50°-60°	90.1	8.1
60°-70°	30.8	2.8
70°-80°	8.8	0.8
80°-90°	1.9	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°	553.0	49.9
0°-40°	802.8	72.4
0°-60°	1067.1	96.3
0°-90°	1108.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1108.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	859	859	859	859	859	
5°	853	852	839	843	840	81
15°	799	779	732	708	699	224
25°	677	634	566	528	512	311
35°	530	465	383	334	314	330
45°	366	299	211	146	118	281
55°	191	144	72	56	54	172
65°	38	33	25	24	25	46
75°	7	7	8	9	9	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°	858.7	858.7	858.7	858.7	858.7
2.5°	857.4	858.7	850.7	858.7	860.0
5°	853.4	852.1	838.8	842.7	840.1
7.5°	845.4	841.4	820.1	814.8	814.8
10°	833.4	825.5	793.6	784.3	780.3
12.5°	817.5	806.9	765.6	748.4	741.7
15°	798.9	778.9	732.4	708.5	699.2
17.5°	772.3	745.7	695.2	667.3	652.7
20°	744.4	711.2	655.3	622.1	607.5
22.5°	715.1	675.3	611.5	575.6	559.6
25°	676.6	634.1	566.3	527.7	511.8
27.5°	639.4	594.2	522.4	478.5	462.6
30°	603.5	550.3	474.5	432.0	412.1
32.5°	567.6	507.8	429.3	382.8	364.2
35°	530.4	465.2	382.8	333.6	313.7
37.5°	490.5	424.0	339.0	285.8	261.9
40°	449.3	380.2	295.1	235.3	212.7
42.5°	408.1	340.3	251.2	190.1	163.5
45°	365.5	299.1	211.4	146.2	118.3
47.5°	323.0	257.9	172.8	106.3	89.1
50°	281.8	219.3	134.3	78.4	73.1
52.5°	236.6	182.1	101.0	65.1	63.8
55°	191.4	143.6	71.8	55.8	54.5
57.5°	151.5	111.7	51.8	46.5	45.2
60°	109.0	79.8	39.9	38.5	37.2
62.5°	71.8	54.5	31.9	30.6	30.6
65°	38.5	33.2	25.3	23.9	25.3
67.5°	16.0	18.6	18.6	19.9	19.9
70°	10.6	12.0	14.6	16.0	16.0
72.5°	8.0	9.3	10.6	12.0	12.0
75°	6.6	6.6	8.0	9.3	9.3
77.5°	4.0	5.3	5.3	6.6	8.0
80°	2.7	4.0	4.0	5.3	5.3
82.5°	1.3	2.7	2.7	4.0	4.0
85°	1.3	1.3	1.3	1.3	2.7
87.5°	0.0	0.0	0.0	0.0	1.3
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	14.36	15.62	14.73	15.93	16.25	7.86	9.12	8.23	9.44	9.75
	3H	14.32	15.43	14.70	15.76	16.12	8.64	9.75	9.02	10.08	10.44
	4H	14.26	15.29	14.67	15.64	16.03	8.84	9.87	9.25	10.22	10.61
	6H	14.19	15.14	14.61	15.51	15.90	8.99	9.93	9.40	10.30	10.69
	8H	14.15	15.04	14.58	15.43	15.84	9.02	9.91	9.45	10.30	10.71
	12H	14.11	14.96	14.54	15.34	15.77	9.04	9.89	9.47	10.27	10.71
4H	2H	14.21	15.24	14.61	15.59	15.98	8.12	9.15	8.53	9.50	9.89
	3H	14.20	15.03	14.61	15.44	15.84	9.03	9.87	9.44	10.27	10.67
	4H	14.14	14.89	14.58	15.31	15.75	9.30	10.05	9.74	10.47	10.91
	6H	14.09	14.72	14.55	15.17	15.64	9.52	10.16	9.98	10.60	11.07
	8H	14.03	14.63	14.50	15.08	15.55	9.58	10.18	10.05	10.62	11.10
	12H	13.99	14.51	14.48	15.00	15.47	9.62	10.14	10.11	10.63	11.10
8H	4H	14.03	14.63	14.50	15.07	15.55	9.29	9.88	9.76	10.33	10.80
	6H	13.97	14.45	14.47	14.95	15.43	9.55	10.04	10.06	10.54	11.02
	8H	13.92	14.35	14.44	14.87	15.36	9.66	10.10	10.19	10.61	11.11
	12H	13.88	14.26	14.40	14.76	15.33	9.74	10.12	10.25	10.62	11.19
12H	4H	13.98	14.51	14.47	14.99	15.47	9.25	9.77	9.74	10.26	10.73
	6H	13.91	14.35	14.43	14.86	15.36	9.52	9.95	10.04	10.47	10.96
	8H	13.88	14.26	14.40	14.76	15.33	9.66	10.04	10.17	10.54	11.11