

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059307

Luminaire Tested: S123RDRP-S560D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059307
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D935-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

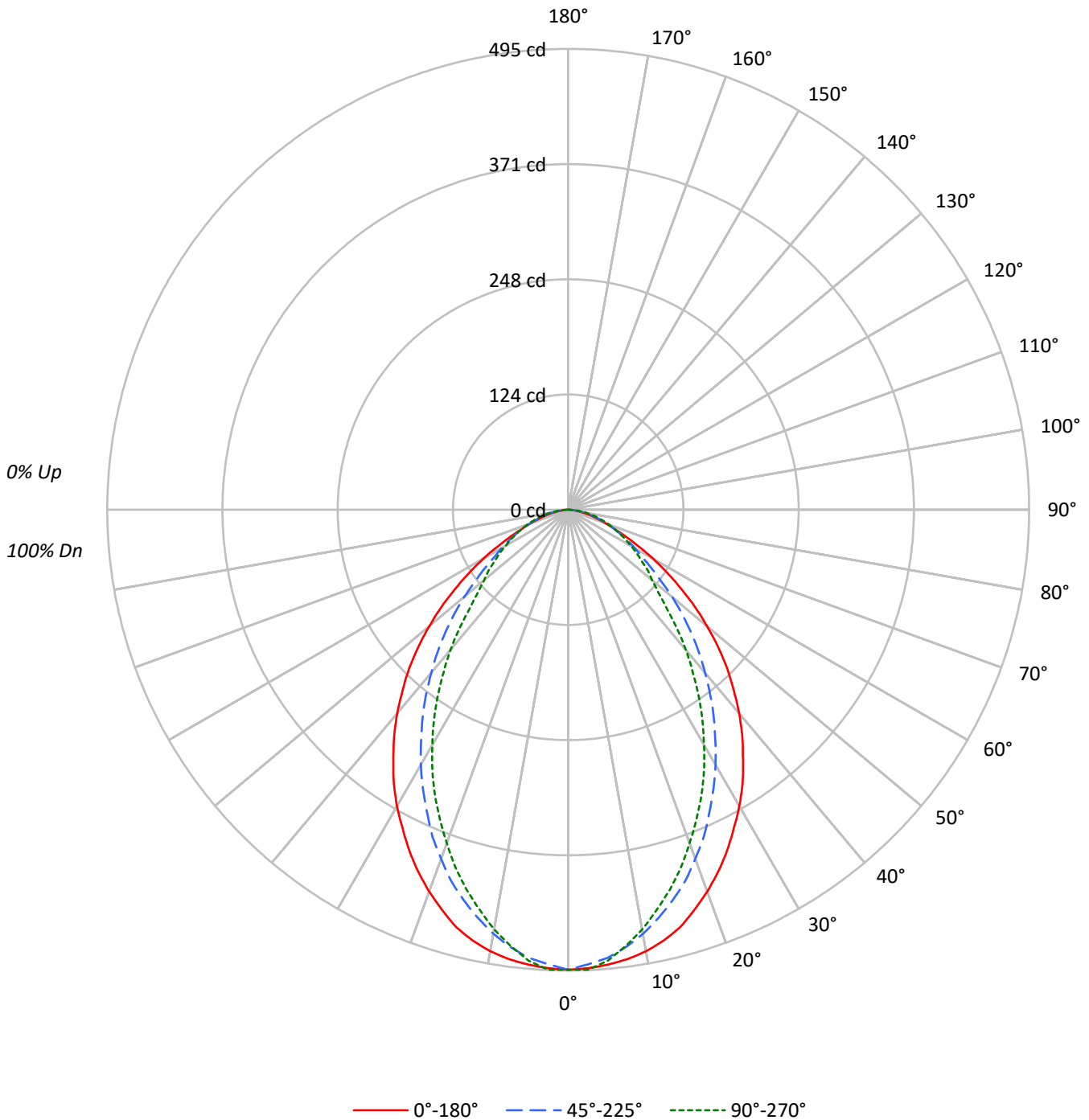
Lumens per Lamp: N/A
Luminaire Lumens: 864.1 lumens
Efficiency: N/A
Efficacy: 44.1 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5802	5802	5802
5°	5782	5698	5732
10°	5742	5516	5459
15°	5646	5277	5133
20°	5455	4986	4763
25°	5232	4647	4386
30°	4984	4291	3954
35°	4690	3908	3499
40°	4378	3504	3014
45°	4014	3097	2474
50°	3559	2658	2148
55°	3028	2225	1969
60°	2468	1938	1827
65°	1881	1717	1700
70°	1469	1528	1590
75°	1184	1375	1484
80°	886	1123	1366
85°	485	714	1199

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4014 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	5.3
10°-20°	123.4	14.3
20°-30°	167.7	19.4
30°-40°	173.9	20.1
40°-50°	146.7	17.0
50°-60°	104.1	12.0
60°-70°	63.6	7.4
70°-80°	31.7	3.7
80°-90°	7.2	0.8
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°	337.0	39.0
0°-40°	510.9	59.1
0°-60°	761.7	88.1
0°-90°	864.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	864.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	490	490	483	486	486	47
15°	464	456	434	426	422	130
25°	404	386	359	346	338	186
35°	327	302	273	254	244	205
45°	242	216	186	161	149	186
55°	148	132	109	99	96	133
65°	68	65	62	62	61	69
75°	26	28	30	32	33	28
85°	4	4	5	8	9	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	494.1	494.1	494.1	494.1	494.1
2.5°	492.9	493.5	488.7	494.1	494.7
5°	490.5	490.5	483.4	486.3	486.3
7.5°	486.9	485.7	473.9	473.9	472.7
10°	481.6	478.0	462.6	459.6	457.8
12.5°	473.9	467.9	448.9	443.6	440.0
15°	464.4	455.5	434.1	426.4	422.2
17.5°	450.7	441.8	418.1	407.4	402.6
20°	436.5	423.4	399.0	388.4	381.2
22.5°	421.0	404.4	380.6	367.6	359.9
25°	403.8	386.0	358.7	345.6	338.5
27.5°	385.4	365.8	337.9	323.0	315.9
30°	367.6	345.0	316.5	299.9	291.6
32.5°	348.6	323.0	293.9	276.7	268.4
35°	327.2	302.3	272.6	253.6	244.1
37.5°	307.0	281.5	250.6	230.4	219.7
40°	285.6	260.1	228.6	207.8	196.6
42.5°	263.1	238.7	207.8	183.5	172.8
45°	241.7	216.2	186.5	160.9	149.0
47.5°	218.5	194.8	165.7	139.5	131.2
50°	194.8	172.8	145.5	121.7	117.6
52.5°	171.6	153.2	125.3	109.9	108.1
55°	147.9	132.4	108.7	99.2	96.2
57.5°	125.9	114.6	93.2	88.5	87.3
60°	105.1	95.6	82.5	79.6	77.8
62.5°	84.9	79.6	71.9	70.7	69.5
65°	67.7	65.3	61.8	61.8	61.2
67.5°	53.4	53.4	52.9	54.0	53.4
70°	42.8	43.3	44.5	45.7	46.3
72.5°	33.8	35.6	36.8	38.6	39.2
75°	26.1	27.9	30.3	31.5	32.7
77.5°	19.0	20.8	23.2	24.9	26.1
80°	13.1	14.3	16.6	19.0	20.2
82.5°	8.3	8.9	10.7	13.1	14.3
85°	3.6	4.2	5.3	7.7	8.9
87.5°	0.0	0.0	0.6	2.4	4.2
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	14.92	16.37	15.28	16.68	17.00	13.02	14.47	13.38	14.78	15.09
	3H	15.81	17.11	16.19	17.44	17.80	14.59	15.88	14.96	16.21	16.57
	4H	16.10	17.31	16.50	17.66	18.04	15.18	16.40	15.58	16.74	17.12
	6H	16.25	17.36	16.66	17.73	18.12	15.63	16.75	16.05	17.12	17.51
	8H	16.27	17.33	16.70	17.72	18.12	15.78	16.85	16.21	17.24	17.64
	12H	16.26	17.28	16.69	17.66	18.09	15.88	16.90	16.31	17.28	17.71
4H	2H	15.16	16.37	15.56	16.72	17.10	13.56	14.77	13.96	15.12	15.50
	3H	16.27	17.27	16.68	17.68	18.08	15.33	16.33	15.74	16.73	17.13
	4H	16.66	17.56	17.10	17.98	18.42	16.04	16.94	16.48	17.36	17.80
	6H	16.91	17.68	17.36	18.13	18.59	16.61	17.39	17.07	17.84	18.30
	8H	16.95	17.68	17.41	18.12	18.59	16.80	17.53	17.27	17.98	18.45
	12H	16.96	17.60	17.44	18.08	18.56	16.94	17.59	17.43	18.07	18.54
8H	4H	16.82	17.55	17.29	17.99	18.46	16.25	16.98	16.72	17.42	17.89
	6H	17.13	17.73	17.63	18.23	18.71	16.93	17.52	17.42	18.02	18.50
	8H	17.21	17.75	17.73	18.26	18.75	17.18	17.72	17.70	18.23	18.72
	12H	17.25	17.72	17.76	18.21	18.78	17.39	17.87	17.90	18.36	18.93
12H	4H	16.83	17.47	17.31	17.95	18.42	16.25	16.90	16.73	17.38	17.85
	6H	17.15	17.69	17.67	18.20	18.69	16.93	17.47	17.45	17.98	18.47
	8H	17.26	17.74	17.78	18.23	18.80	17.24	17.71	17.75	18.21	18.77