

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: P1059304

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059304
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: S123RDRP-S560D935-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

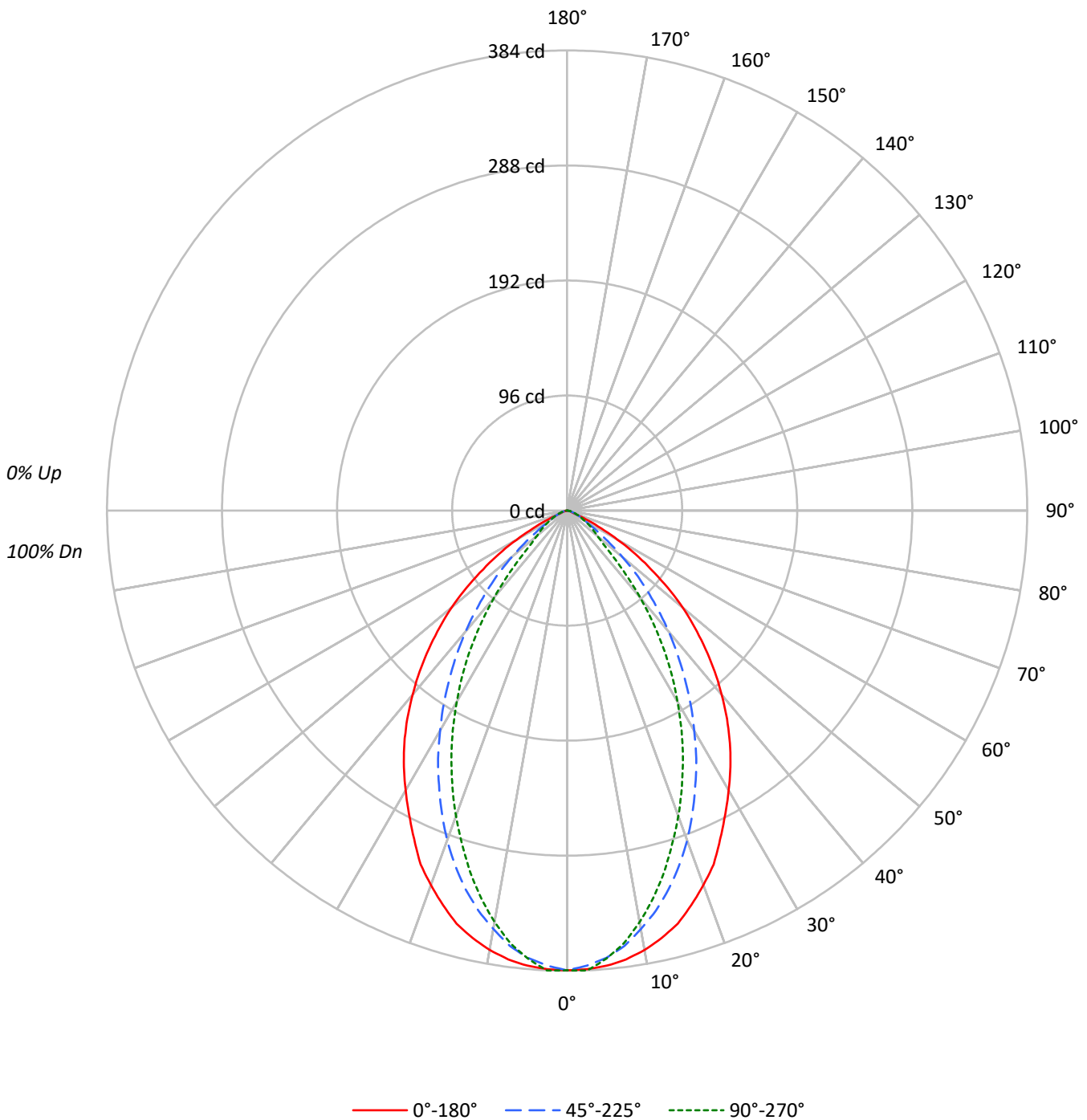
Lumens per Lamp: N/A
Luminaire Lumens: 495.2 lumens
Efficiency: N/A
Efficacy: 25.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	4504	4504	4504
5°	4493	4417	4424
10°	4439	4227	4157
15°	4339	3978	3798
20°	4155	3659	3391
25°	3917	3278	2962
30°	3656	2875	2496
35°	3396	2451	2008
40°	3076	2020	1456
45°	2712	1568	878
50°	2300	1096	597
55°	1750	657	497
60°	1144	418	390
65°	478	314	314
70°	165	223	244
75°	136	163	191
80°	81	122	162
85°	81	81	162

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2712 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	7.2
10°-20°	92.7	18.7
20°-30°	118.9	24.0
30°-40°	111.6	22.5
40°-50°	77.8	15.7
50°-60°	40.3	8.1
60°-70°	13.8	2.8
70°-80°	3.9	0.8
80°-90°	0.8	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°	247.1	49.9
0°-40°	358.6	72.4
0°-60°	476.7	96.3
0°-90°	495.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	495.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	384	384	384	384	384	
5°	381	381	375	376	375	36
15°	357	348	327	316	312	100
25°	302	283	253	236	229	139
35°	237	208	171	149	140	148
45°	163	134	94	65	53	126
55°	86	64	32	25	24	77
65°	17	15	11	11	11	20
75°	3	3	4	4	4	3
85°	1	1	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	383.6	383.6	383.6	383.6	383.6
2.5°	383.0	383.6	380.1	383.6	384.2
5°	381.2	380.6	374.7	376.5	375.3
7.5°	377.7	375.9	366.4	364.0	364.0
10°	372.3	368.8	354.5	350.4	348.6
12.5°	365.2	360.5	342.0	334.3	331.4
15°	356.9	348.0	327.2	316.5	312.4
17.5°	345.0	333.1	310.6	298.1	291.6
20°	332.5	317.7	292.8	277.9	271.4
22.5°	319.5	301.7	273.2	257.1	250.0
25°	302.3	283.3	253.0	235.8	228.6
27.5°	285.6	265.4	233.4	213.8	206.7
30°	269.6	245.8	212.0	193.0	184.1
32.5°	253.6	226.8	191.8	171.0	162.7
35°	236.9	207.8	171.0	149.1	140.1
37.5°	219.1	189.4	151.4	127.7	117.0
40°	200.7	169.8	131.8	105.1	95.0
42.5°	182.3	152.0	112.2	84.9	73.0
45°	163.3	133.6	94.4	65.3	52.9
47.5°	144.3	115.2	77.2	47.5	39.8
50°	125.9	98.0	60.0	35.0	32.7
52.5°	105.7	81.4	45.1	29.1	28.5
55°	85.5	64.1	32.1	24.9	24.3
57.5°	67.7	49.9	23.2	20.8	20.2
60°	48.7	35.6	17.8	17.2	16.6
62.5°	32.1	24.3	14.3	13.7	13.7
65°	17.2	14.8	11.3	10.7	11.3
67.5°	7.1	8.3	8.3	8.9	8.9
70°	4.8	5.3	6.5	7.1	7.1
72.5°	3.6	4.2	4.8	5.3	5.3
75°	3.0	3.0	3.6	4.2	4.2
77.5°	1.8	2.4	2.4	3.0	3.6
80°	1.2	1.8	1.8	2.4	2.4
82.5°	0.6	1.2	1.2	1.8	1.8
85°	0.6	0.6	0.6	0.6	1.2
87.5°	0.0	0.0	0.0	0.0	0.6
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	11.56	12.82	11.93	13.14	13.45	5.07	6.33	5.44	6.64	6.96
	3H	11.52	12.62	11.90	12.96	13.32	5.84	6.95	6.22	7.28	7.65
	4H	11.46	12.49	11.87	12.85	13.23	6.05	7.08	6.45	7.43	7.81
	6H	11.39	12.34	11.81	12.71	13.10	6.19	7.14	6.61	7.51	7.90
	8H	11.35	12.24	11.78	12.63	13.04	6.23	7.12	6.66	7.51	7.92
	12H	11.31	12.16	11.74	12.54	12.97	6.25	7.10	6.68	7.48	7.92
4H	2H	11.41	12.44	11.81	12.79	13.18	5.33	6.36	5.73	6.71	7.09
	3H	11.40	12.23	11.81	12.64	13.04	6.23	7.07	6.64	7.47	7.87
	4H	11.34	12.09	11.78	12.51	12.95	6.51	7.25	6.94	7.67	8.12
	6H	11.29	11.93	11.75	12.37	12.84	6.73	7.37	7.19	7.82	8.28
	8H	11.24	11.83	11.71	12.28	12.75	6.79	7.39	7.26	7.84	8.31
	12H	11.19	11.71	11.68	12.20	12.67	6.83	7.36	7.32	7.84	8.32
8H	4H	11.23	11.83	11.70	12.27	12.75	6.49	7.09	6.96	7.54	8.01
	6H	11.17	11.65	11.67	12.15	12.63	6.77	7.25	7.27	7.75	8.23
	8H	11.12	11.55	11.64	12.07	12.56	6.88	7.31	7.40	7.83	8.33
	12H	11.08	11.47	11.60	11.96	12.54	6.95	7.34	7.47	7.84	8.41
12H	4H	11.19	11.71	11.67	12.19	12.67	6.46	6.98	6.94	7.46	7.94
	6H	11.11	11.55	11.64	12.06	12.56	6.73	7.17	7.26	7.68	8.18
	8H	11.08	11.47	11.60	11.96	12.54	6.87	7.26	7.39	7.75	8.33