

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: P1059301

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059301
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D935-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

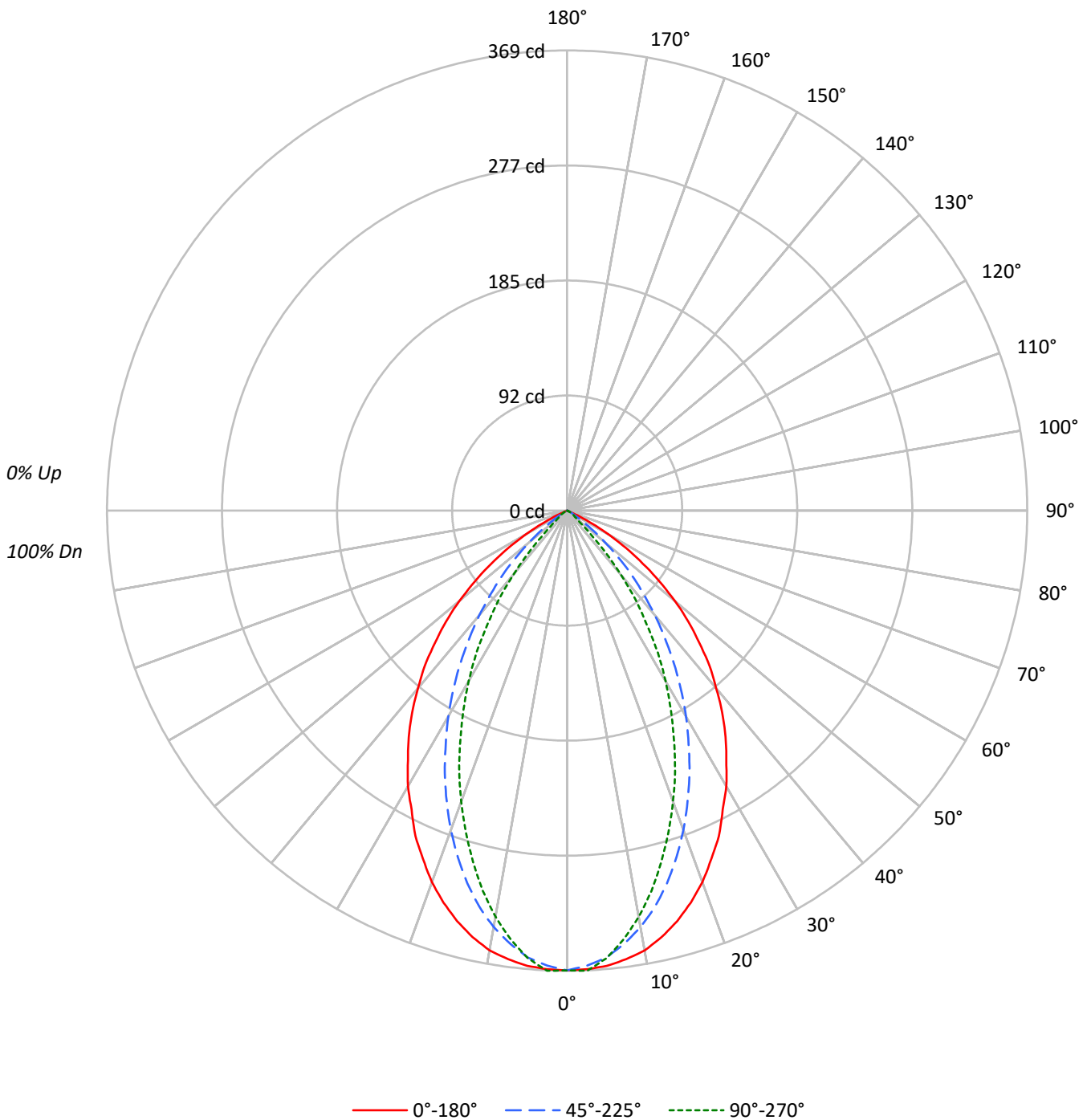
Lumens per Lamp: N/A
Luminaire Lumens: 420.8 lumens
Efficiency: N/A
Efficacy: 21.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4329	4329	4329
5°	4319	4241	4248
10°	4270	4043	3943
15°	4143	3761	3544
20°	3962	3405	3102
25°	3731	3008	2624
30°	3462	2584	2141
35°	3175	2136	1591
40°	2850	1675	1019
45°	2484	1222	423
50°	2061	727	163
55°	1519	303	121
60°	921	113	70
65°	247	67	33
70°	0	21	21
75°	0	0	27
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	8.1
10°-20°	87.6	20.8
20°-30°	109.2	25.9
30°-40°	97.6	23.2
40°-50°	61.6	14.6
50°-60°	25.8	6.1
60°-70°	4.9	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	230.7	54.8
0°-40°	328.4	78.0
0°-60°	415.8	98.8
0°-90°	420.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	420.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	369	369	369	369	369	
5°	366	366	360	361	360	35
15°	341	332	309	296	292	96
25°	288	265	232	212	202	132
35°	222	189	149	122	111	138
45°	150	116	74	39	26	115
55°	74	51	15	6	6	66
65°	9	6	2	1	1	13
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	368.7	368.7	368.7	368.7	368.7
2.5°	368.1	368.7	365.2	368.7	369.3
5°	366.4	365.8	359.8	361.0	360.4
7.5°	362.8	361.0	350.3	348.0	346.8
10°	358.1	353.3	339.1	333.1	330.7
12.5°	350.3	343.8	325.4	315.9	312.3
15°	340.8	332.5	309.4	296.3	291.5
17.5°	329.6	317.7	291.5	277.3	270.2
20°	317.1	300.5	272.5	255.3	248.2
22.5°	302.2	283.8	252.4	234.0	226.2
25°	288.0	264.8	232.2	212.0	202.5
27.5°	270.2	245.8	210.8	190.0	179.9
30°	255.3	227.4	190.6	167.4	157.9
32.5°	237.5	208.4	169.8	144.3	135.4
35°	221.5	189.4	149.0	122.3	111.0
37.5°	204.3	171.0	128.3	100.4	89.7
40°	185.9	152.6	109.3	78.4	66.5
42.5°	169.2	134.2	90.3	58.2	46.3
45°	149.6	116.4	73.6	39.2	25.5
47.5°	131.8	99.8	55.8	22.0	13.7
50°	112.8	82.5	39.8	11.3	8.9
52.5°	93.2	65.9	26.1	7.7	7.1
55°	74.2	51.1	14.8	5.9	5.9
57.5°	55.8	36.8	7.7	4.8	4.2
60°	39.2	24.3	4.8	3.6	3.0
62.5°	22.6	14.3	3.6	2.4	2.4
65°	8.9	6.5	2.4	1.2	1.2
67.5°	0.6	1.8	1.2	0.6	0.6
70°	0.0	0.0	0.6	0.6	0.6
72.5°	0.0	0.0	0.6	0.6	0.6
75°	0.0	0.0	0.0	0.0	0.6
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	10.28	11.46	10.64	11.77	12.08	0.00	0.00	0.00	0.00	0.00
	3H	10.12	11.15	10.50	11.48	11.85	0.00	0.00	0.00	0.00	0.00
	4H	10.03	10.99	10.44	11.34	11.73	0.00	0.00	0.00	0.00	0.00
	6H	9.94	10.81	10.36	11.19	11.58	0.00	0.00	0.00	0.00	0.00
	8H	9.89	10.71	10.32	11.11	11.51	0.00	0.00	0.00	0.00	0.00
	12H	9.84	10.63	10.27	11.01	11.44	0.00	0.00	0.00	0.00	0.00
4H	2H	10.04	10.99	10.44	11.34	11.73	0.00	0.00	0.00	0.00	0.00
	3H	9.87	10.64	10.29	11.05	11.45	0.00	0.00	0.00	0.00	0.00
	4H	9.77	10.45	10.21	10.87	11.32	0.00	0.00	0.00	0.00	0.00
	6H	9.67	10.26	10.14	10.71	11.18	0.00	0.00	0.00	0.00	0.00
	8H	9.61	10.15	10.08	10.60	11.07	0.00	0.00	0.00	0.00	0.00
	12H	9.55	10.03	10.04	10.51	10.99	0.00	0.00	0.00	0.00	0.00
8H	4H	9.61	10.15	10.08	10.60	11.07	0.00	0.00	0.00	0.00	0.00
	6H	9.49	9.93	10.00	10.43	10.92	0.00	0.00	0.00	0.00	0.00
	8H	9.42	9.82	9.95	10.33	10.83	0.00	0.00	0.00	0.00	0.00
	12H	9.36	9.71	9.88	10.21	10.79	0.00	0.00	0.00	0.00	0.00
12H	4H	9.55	10.03	10.04	10.51	10.99	0.00	0.00	0.00	0.00	0.00
	6H	9.42	9.82	9.95	10.33	10.83	0.00	0.00	0.00	0.00	0.00
	8H	9.36	9.71	9.88	10.21	10.79	0.00	0.00	0.00	0.00	0.00