

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: P1059298

Luminaire Tested: S123RDRP-S560D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059298
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-S560D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

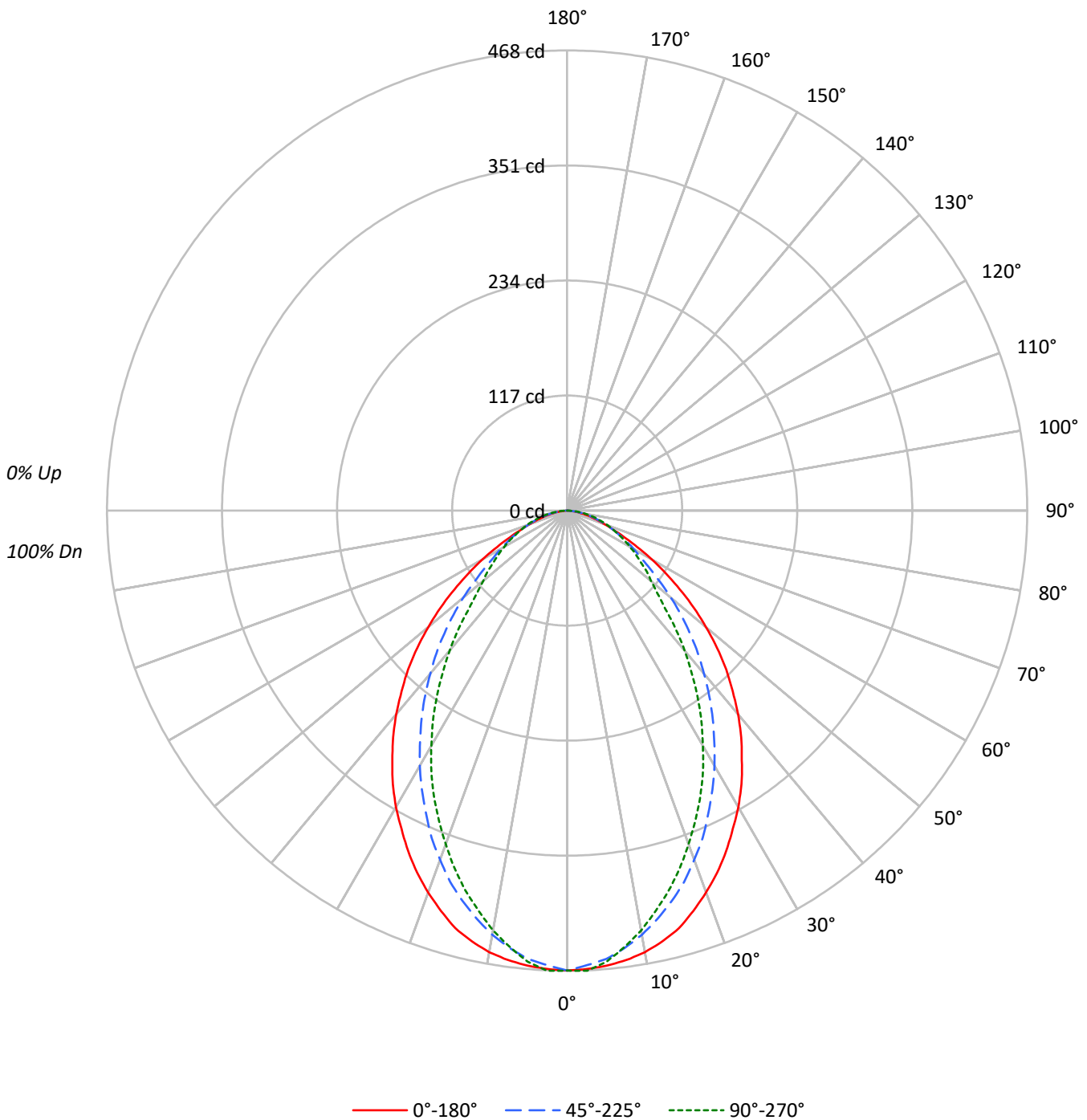
Lumens per Lamp: N/A
Luminaire Lumens: 818.2 lumens
Efficiency: N/A
Efficacy: 41.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	5493	5493	5493
5°	5475	5395	5428
10°	5437	5223	5169
15°	5345	4996	4860
20°	5165	4722	4511
25°	4955	4400	4153
30°	4720	4064	3744
35°	4441	3700	3313
40°	4146	3319	2853
45°	3801	2933	2343
50°	3369	2517	2033
55°	2866	2107	1865
60°	2337	1837	1731
65°	1781	1625	1609
70°	1390	1449	1507
75°	1121	1302	1402
80°	839	1062	1292
85°	458	687	1132

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3801 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.4	5.3
10°-20°	116.8	14.3
20°-30°	158.8	19.4
30°-40°	164.7	20.1
40°-50°	138.9	17.0
50°-60°	98.6	12.0
60°-70°	60.2	7.4
70°-80°	30.0	3.7
80°-90°	6.8	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°	319.1	39.0
0°-40°	483.8	59.1
0°-60°	721.2	88.1
0°-90°	818.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	818.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	468	468	468	468	468	
5°	464	464	458	460	460	44
15°	440	431	411	404	400	123
25°	382	366	340	327	320	176
35°	310	286	258	240	231	194
45°	229	205	177	152	141	176
55°	140	125	103	94	91	126
65°	64	62	58	58	58	65
75°	25	26	29	30	31	27
85°	3	4	5	7	8	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	467.8	467.8	467.8	467.8	467.8
2.5°	466.7	467.3	462.8	467.8	468.4
5°	464.5	464.5	457.7	460.5	460.5
7.5°	461.1	460.0	448.7	448.7	447.6
10°	456.0	452.7	438.0	435.2	433.5
12.5°	448.7	443.1	425.1	420.0	416.7
15°	439.7	431.3	411.0	403.7	399.8
17.5°	426.8	418.4	395.9	385.7	381.2
20°	413.3	400.9	377.9	367.7	361.0
22.5°	398.7	382.9	360.4	348.1	340.8
25°	382.4	365.5	339.6	327.3	320.5
27.5°	364.9	346.4	320.0	305.9	299.1
30°	348.1	326.7	299.7	284.0	276.1
32.5°	330.1	305.9	278.3	262.0	254.2
35°	309.8	286.2	258.1	240.1	231.1
37.5°	290.7	266.5	237.3	218.2	208.1
40°	270.5	246.3	216.5	196.8	186.1
42.5°	249.1	226.0	196.8	173.8	163.6
45°	228.9	204.7	176.6	152.4	141.1
47.5°	206.9	184.4	156.9	132.1	124.3
50°	184.4	163.6	137.8	115.3	111.3
52.5°	162.5	145.1	118.6	104.0	102.3
55°	140.0	125.4	102.9	93.9	91.1
57.5°	119.2	108.5	88.3	83.8	82.7
60°	99.5	90.5	78.2	75.3	73.7
62.5°	80.4	75.3	68.0	66.9	65.8
65°	64.1	61.9	58.5	58.5	57.9
67.5°	50.6	50.6	50.0	51.2	50.6
70°	40.5	41.0	42.2	43.3	43.9
72.5°	32.1	33.7	34.9	36.5	37.1
75°	24.7	26.4	28.7	29.8	30.9
77.5°	18.0	19.7	21.9	23.6	24.7
80°	12.4	13.5	15.7	18.0	19.1
82.5°	7.9	8.4	10.1	12.4	13.5
85°	3.4	3.9	5.1	7.3	8.4
87.5°	0.0	0.0	0.6	2.2	3.9
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	14.73	16.18	15.09	16.49	16.80	12.83	14.28	13.19	14.59	14.90
	3H	15.62	16.92	16.00	17.25	17.61	14.40	15.70	14.78	16.02	16.39
	4H	15.91	17.12	16.31	17.47	17.85	14.99	16.21	15.39	16.56	16.94
	6H	16.06	17.17	16.47	17.54	17.93	15.44	16.56	15.86	16.93	17.32
	8H	16.08	17.14	16.51	17.53	17.93	15.59	16.66	16.02	17.05	17.45
	12H	16.07	17.09	16.50	17.47	17.90	15.69	16.71	16.12	17.09	17.52
4H	2H	14.97	16.18	15.37	16.53	16.91	13.37	14.58	13.77	14.93	15.31
	3H	16.08	17.08	16.50	17.49	17.89	15.14	16.14	15.55	16.54	16.95
	4H	16.47	17.37	16.91	17.79	18.23	15.85	16.75	16.29	17.17	17.61
	6H	16.72	17.49	17.17	17.94	18.40	16.42	17.20	16.88	17.65	18.11
	8H	16.76	17.49	17.22	17.93	18.40	16.61	17.34	17.08	17.79	18.26
	12H	16.77	17.41	17.25	17.89	18.37	16.75	17.40	17.24	17.88	18.35
8H	4H	16.63	17.36	17.10	17.80	18.27	16.06	16.79	16.53	17.23	17.70
	6H	16.94	17.54	17.44	18.04	18.51	16.74	17.33	17.23	17.83	18.31
	8H	17.02	17.56	17.54	18.07	18.56	16.99	17.53	17.51	18.04	18.53
	12H	17.06	17.53	17.57	18.02	18.59	17.20	17.68	17.71	18.17	18.74
12H	4H	16.64	17.28	17.12	17.76	18.23	16.06	16.71	16.54	17.19	17.66
	6H	16.96	17.50	17.48	18.01	18.50	16.74	17.28	17.26	17.79	18.28
	8H	17.07	17.55	17.58	18.04	18.61	17.05	17.52	17.56	18.02	18.58