

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: P1059250

Luminaire Tested: S123RDRP-S560D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059250  
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-S560D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

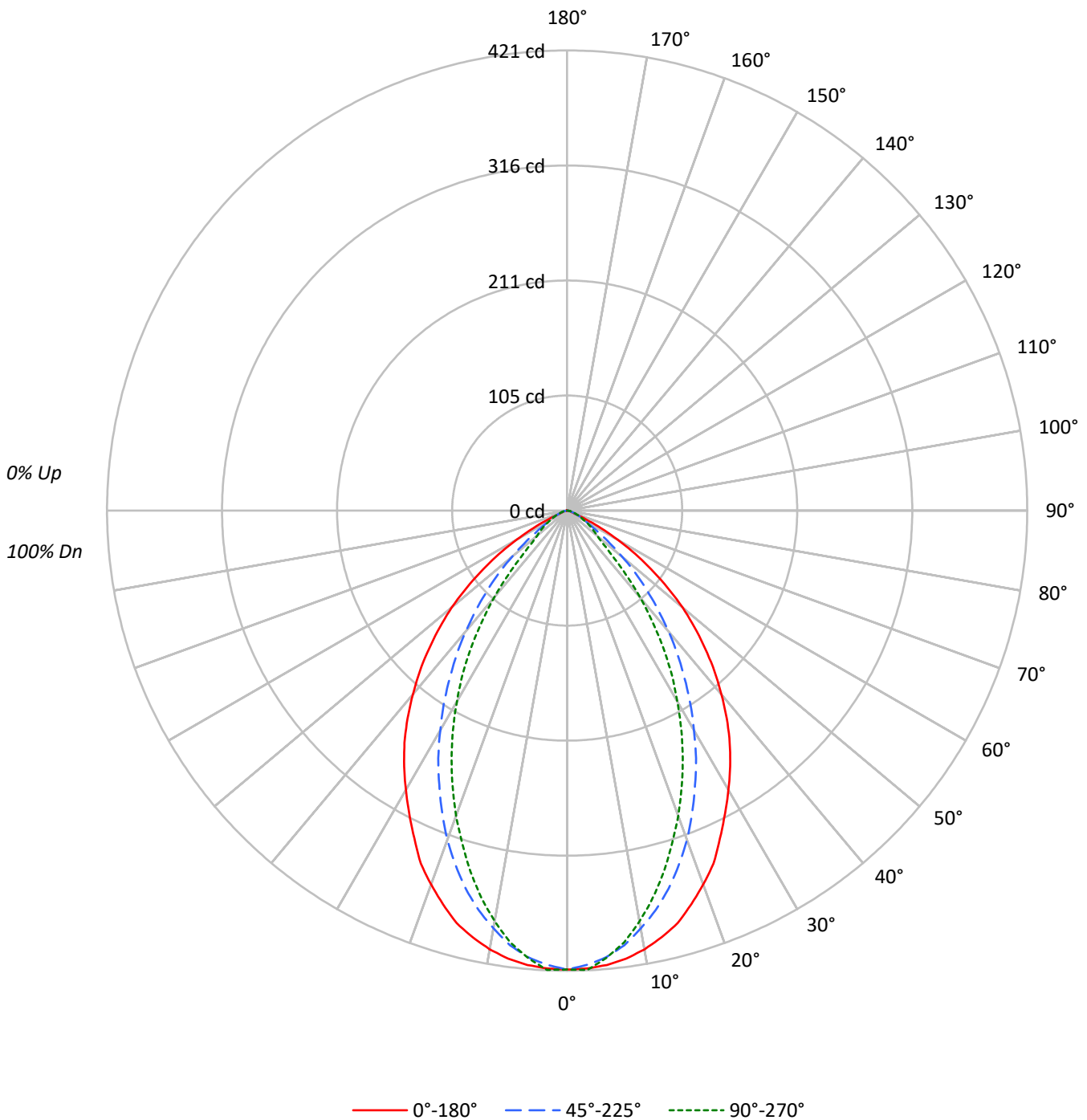
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 542.2 lumens  
Efficiency: N/A  
Efficacy: 27.7 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<sub>in</sub>): 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	47	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°	4931	4931	4931
5°	4919	4835	4842
10°	4860	4628	4550
15°	4750	4355	4156
20°	4549	4005	3713
25°	4287	3588	3243
30°	4001	3147	2732
35°	3718	2683	2199
40°	3368	2212	1594
45°	2969	1717	962
50°	2517	1200	654
55°	1916	719	547
60°	1252	458	427
65°	525	345	345
70°	179	247	268
75°	150	177	209
80°	88	135	176
85°	94	94	175

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2969 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.8	7.2
10°-20°	101.5	18.7
20°-30°	130.2	24.0
30°-40°	122.1	22.5
40°-50°	85.2	15.7
50°-60°	44.1	8.1
60°-70°	15.1	2.8
70°-80°	4.3	0.8
80°-90°	0.9	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°	270.4	49.9
0°-40°	392.6	72.4
0°-60°	521.9	96.2
0°-90°	542.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	542.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	417	417	410	412	411	40
15°	391	381	358	346	342	109
25°	331	310	277	258	250	152
35°	259	228	187	163	153	162
45°	179	146	103	72	58	138
55°	94	70	35	27	27	84
65°	19	16	12	12	12	22
75°	3	3	4	5	5	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	419.9	419.9	419.9	419.9	419.9
2.5°	419.3	419.9	416.0	419.9	420.6
5°	417.3	416.7	410.2	412.1	410.8
7.5°	413.4	411.5	401.1	398.5	398.5
10°	407.6	403.7	388.1	383.5	381.6
12.5°	399.8	394.6	374.4	366.0	362.7
15°	390.7	380.9	358.2	346.5	341.9
17.5°	377.7	364.7	340.0	326.3	319.2
20°	364.0	347.8	320.5	304.2	297.1
22.5°	349.7	330.2	299.0	281.5	273.7
25°	330.9	310.1	276.9	258.1	250.3
27.5°	312.7	290.6	255.5	234.0	226.2
30°	295.1	269.1	232.1	211.3	201.5
32.5°	277.6	248.3	210.0	187.2	178.1
35°	259.4	227.5	187.2	163.2	153.4
37.5°	239.9	207.4	165.8	139.8	128.1
40°	219.7	185.9	144.3	115.1	104.0
42.5°	199.6	166.4	122.9	93.0	80.0
45°	178.8	146.3	103.4	71.5	57.9
47.5°	158.0	126.1	84.5	52.0	43.6
50°	137.8	107.3	65.7	38.4	35.8
52.5°	115.7	89.1	49.4	31.9	31.2
55°	93.6	70.2	35.1	27.3	26.7
57.5°	74.1	54.6	25.4	22.8	22.1
60°	53.3	39.0	19.5	18.9	18.2
62.5°	35.1	26.7	15.6	15.0	15.0
65°	18.9	16.3	12.4	11.7	12.4
67.5°	7.8	9.1	9.1	9.8	9.8
70°	5.2	5.9	7.2	7.8	7.8
72.5°	3.9	4.6	5.2	5.9	5.9
75°	3.3	3.3	3.9	4.6	4.6
77.5°	2.0	2.6	2.6	3.3	3.9
80°	1.3	2.0	2.0	2.6	2.6
82.5°	0.7	1.3	1.3	2.0	2.0
85°	0.7	0.7	0.7	0.7	1.3
87.5°	0.0	0.0	0.0	0.0	0.7
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	11.87	13.13	12.24	13.45	13.76	5.39	6.65	5.76	6.97	7.28
	3H	11.83	12.94	12.21	13.27	13.63	6.17	7.28	6.55	7.61	7.98
	4H	11.78	12.81	12.18	13.16	13.54	6.38	7.41	6.78	7.76	8.14
	6H	11.71	12.65	12.12	13.02	13.42	6.52	7.46	6.94	7.83	8.23
	8H	11.66	12.56	12.09	12.95	13.35	6.56	7.45	6.99	7.84	8.25
	12H	11.62	12.47	12.05	12.86	13.29	6.58	7.43	7.01	7.81	8.24
4H	2H	11.72	12.75	12.13	13.10	13.49	5.65	6.68	6.05	7.03	7.42
	3H	11.71	12.54	12.12	12.95	13.35	6.56	7.40	6.97	7.80	8.20
	4H	11.66	12.40	12.09	12.82	13.26	6.84	7.58	7.28	8.00	8.45
	6H	11.60	12.24	12.07	12.69	13.15	7.06	7.69	7.52	8.14	8.61
	8H	11.55	12.14	12.02	12.59	13.06	7.12	7.72	7.59	8.16	8.64
	12H	11.50	12.03	11.99	12.51	12.99	7.16	7.68	7.65	8.17	8.64
8H	4H	11.54	12.14	12.02	12.59	13.06	6.82	7.42	7.29	7.87	8.34
	6H	11.48	11.97	11.99	12.47	12.95	7.09	7.58	7.60	8.08	8.56
	8H	11.43	11.87	11.96	12.39	12.88	7.21	7.64	7.73	8.16	8.65
	12H	11.40	11.78	11.91	12.28	12.85	7.28	7.67	7.80	8.17	8.74
12H	4H	11.50	12.02	11.99	12.51	12.98	6.79	7.31	7.27	7.79	8.27
	6H	11.43	11.86	11.95	12.38	12.87	7.06	7.49	7.58	8.01	8.50
	8H	11.40	11.78	11.91	12.28	12.85	7.20	7.59	7.72	8.08	8.65