

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: P1059264

Luminaire Tested: S123RDRP-S560D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D835-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

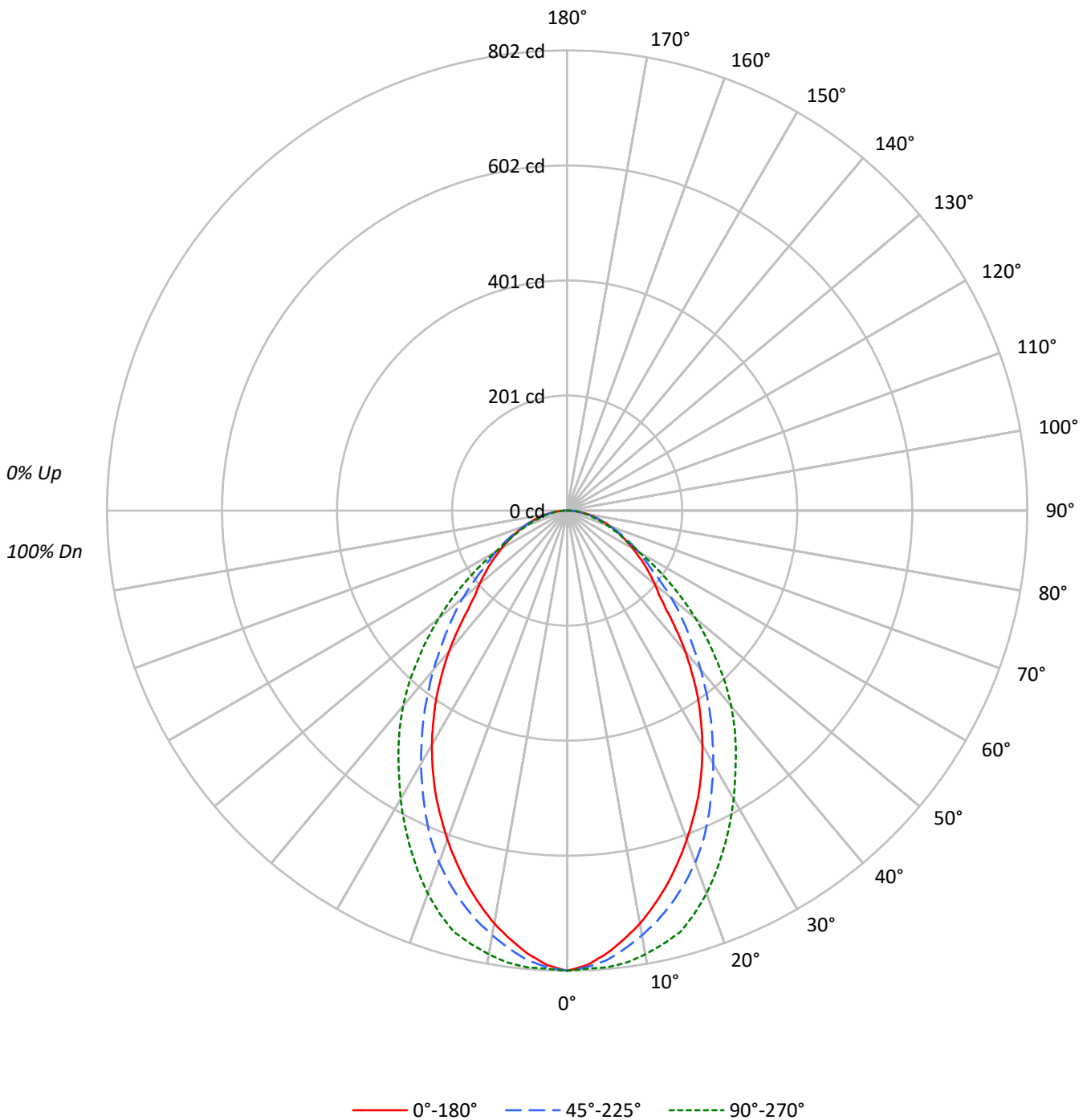
Lumens per Lamp: N/A
Luminaire Lumens: 1409.2 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (Ain): 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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9417	9417	9417
5°	9143	9274	9420
10°	8715	8962	9365
15°	8197	8600	9246
20°	7624	8159	8875
25°	7038	7565	8388
30°	6392	6906	7870
35°	5688	6233	7351
40°	4908	5554	6814
45°	4057	4917	6109
50°	3644	4337	5332
55°	3376	3701	4422
60°	3112	3372	3387
65°	2895	3048	2837
70°	2726	2771	2489
75°	2568	2473	2191
80°	2428	2238	2056
85°	2331	2506	2331

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6109 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	5.3
10°-20°	200.1	14.2
20°-30°	270.7	19.2
30°-40°	278.2	19.7
40°-50°	233.6	16.6
50°-60°	167.5	11.9
60°-70°	106.6	7.6
70°-80°	58.6	4.2
80°-90°	19.5	1.4
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°	545.1	38.7
0°-40°	823.3	58.4
0°-60°	1224.4	86.9
0°-90°	1409.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1409.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	802	802	802	802	802	
5°	776	790	787	792	799	73
15°	674	693	707	738	761	189
25°	543	564	584	616	647	249
35°	397	418	435	474	513	247
45°	244	266	296	339	368	193
55°	165	168	181	205	216	147
65°	104	110	110	104	102	104
75°	57	62	54	50	48	60
85°	17	18	19	19	17	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	802.0	802.0	802.0	802.0	802.0
2.5°	793.0	804.0	796.4	797.1	799.2
5°	775.7	789.5	786.8	792.3	799.2
7.5°	754.3	769.5	770.2	783.3	794.4
10°	730.9	746.8	751.6	771.6	785.4
12.5°	703.3	720.5	730.9	755.7	773.7
15°	674.3	692.9	707.4	737.8	760.6
17.5°	642.5	662.6	681.2	713.6	737.1
20°	610.1	631.5	652.9	683.3	710.2
22.5°	576.3	598.4	620.5	650.1	679.8
25°	543.2	563.9	583.9	615.6	647.4
27.5°	507.3	528.7	545.9	581.1	614.2
30°	471.4	492.8	509.3	545.9	580.4
32.5°	434.1	456.2	471.4	509.3	545.2
35°	396.8	418.2	434.8	473.5	512.8
37.5°	357.5	381.0	397.5	441.0	479.7
40°	320.2	342.3	362.3	407.9	444.5
42.5°	281.6	304.4	327.1	374.1	407.9
45°	244.3	265.7	296.1	338.9	367.9
47.5°	217.4	231.2	266.4	302.3	329.9
50°	199.5	205.0	237.4	269.2	291.9
52.5°	181.5	185.7	207.7	236.7	254.0
55°	164.9	168.4	180.8	205.0	216.0
57.5°	147.0	150.5	160.8	174.6	180.8
60°	132.5	135.3	143.6	145.6	144.2
62.5°	118.0	122.2	126.3	121.5	119.4
65°	104.2	110.4	109.7	103.5	102.1
67.5°	91.8	98.0	94.6	88.3	86.3
70°	79.4	85.6	80.7	74.5	72.5
72.5°	67.6	74.5	66.9	61.4	60.0
75°	56.6	62.1	54.5	50.4	48.3
77.5°	46.2	50.4	43.5	40.0	38.6
80°	35.9	38.6	33.1	31.1	30.4
82.5°	26.2	27.6	24.2	25.5	24.8
85°	17.3	17.9	18.6	19.3	17.3
87.5°	8.3	11.7	11.7	11.0	9.0
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	14.98	16.44	15.34	16.75	17.07	16.05	17.51	16.41	17.82	18.14
	3H	16.67	17.99	17.05	18.31	18.68	17.13	18.44	17.51	18.77	19.13
	4H	17.33	18.56	17.73	18.91	19.29	17.53	18.76	17.93	19.11	19.49
	6H	17.83	18.96	18.24	19.33	19.72	17.84	18.97	18.25	19.34	19.73
	8H	18.00	19.08	18.43	19.47	19.87	17.98	19.05	18.40	19.44	19.85
	12H	18.13	19.16	18.56	19.54	19.97	18.10	19.13	18.53	19.51	19.94
4H	2H	15.58	16.81	15.98	17.16	17.54	16.45	17.68	16.85	18.03	18.41
	3H	17.51	18.52	17.92	18.92	19.33	17.77	18.78	18.18	19.19	19.59
	4H	18.32	19.23	18.75	19.65	20.09	18.29	19.20	18.72	19.62	20.06
	6H	18.96	19.76	19.42	20.20	20.67	18.72	19.51	19.18	19.96	20.42
	8H	19.19	19.93	19.65	20.38	20.84	18.91	19.65	19.37	20.10	20.57
	12H	19.36	20.02	19.84	20.50	20.97	19.09	19.75	19.57	20.23	20.71
8H	4H	18.55	19.30	19.02	19.74	20.21	18.53	19.28	19.00	19.72	20.19
	6H	19.34	19.96	19.84	20.45	20.93	19.08	19.69	19.58	20.19	20.67
	8H	19.65	20.21	20.17	20.72	21.21	19.36	19.91	19.87	20.42	20.91
	12H	19.92	20.41	20.43	20.90	21.47	19.65	20.14	20.16	20.63	21.20
12H	4H	18.57	19.23	19.05	19.71	20.18	18.56	19.22	19.04	19.70	20.17
	6H	19.38	19.93	19.89	20.44	20.93	19.13	19.68	19.65	20.20	20.68
	8H	19.75	20.24	20.26	20.73	21.30	19.47	19.96	19.98	20.45	21.02