

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: P1059255

Luminaire Tested: S123RDRP-S560D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059255
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-S560D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

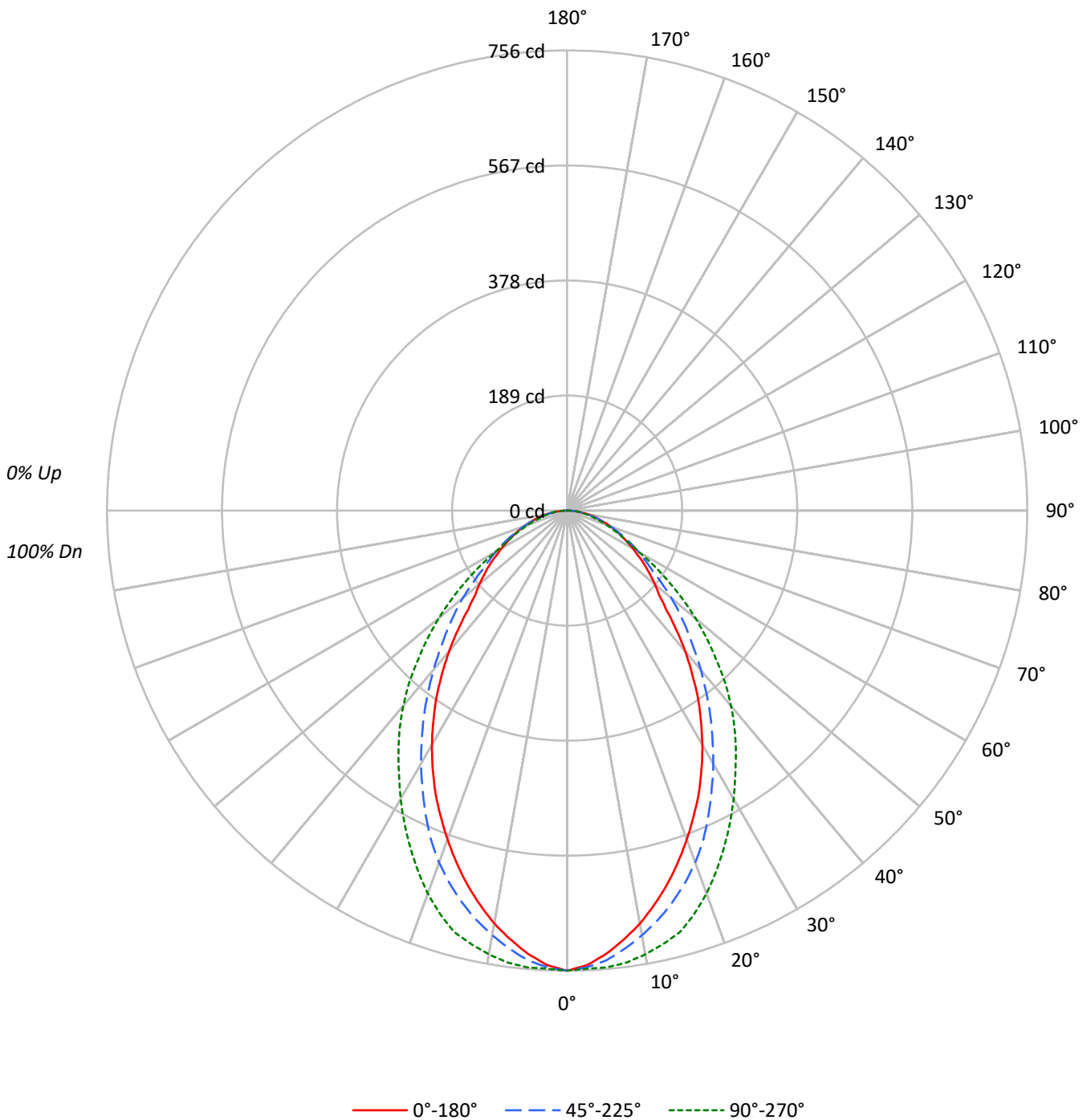
Lumens per Lamp: N/A
Luminaire Lumens: 1328.3 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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	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°	8876	8876	8876
5°	8619	8741	8879
10°	8214	8447	8827
15°	7726	8106	8715
20°	7185	7690	8365
25°	6632	7130	7906
30°	6024	6510	7418
35°	5361	5874	6928
40°	4626	5235	6421
45°	3824	4635	5757
50°	3434	4088	5027
55°	3183	3488	4168
60°	2933	3178	3194
65°	2728	2873	2676
70°	2568	2613	2345
75°	2418	2332	2064
80°	2286	2110	1934
85°	2196	2371	2196

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5757 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	5.3
10°-20°	188.6	14.2
20°-30°	255.2	19.2
30°-40°	262.2	19.7
40°-50°	220.2	16.6
50°-60°	157.9	11.9
60°-70°	100.5	7.6
70°-80°	55.2	4.2
80°-90°	18.4	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°	513.8	38.7
0°-40°	776.0	58.4
0°-60°	1154.1	86.9
0°-90°	1328.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1328.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	731	744	742	747	753	68
15°	636	653	667	695	717	178
25°	512	532	550	580	610	235
35°	374	394	410	446	483	233
45°	230	250	279	319	347	182
55°	156	159	170	193	204	139
65°	98	104	103	98	96	98
75°	53	58	51	48	46	57
85°	16	17	18	18	16	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	755.9	755.9	755.9	755.9	755.9
2.5°	747.4	757.8	750.7	751.3	753.3
5°	731.2	744.2	741.6	746.8	753.3
7.5°	711.0	725.3	726.0	738.3	748.7
10°	688.9	703.8	708.4	727.3	740.3
12.5°	662.9	679.1	688.9	712.3	729.2
15°	635.5	653.1	666.8	695.4	716.9
17.5°	605.6	624.5	642.1	672.6	694.7
20°	575.0	595.2	615.4	644.0	669.4
22.5°	543.2	564.0	584.8	612.8	640.7
25°	511.9	531.5	550.3	580.3	610.2
27.5°	478.1	498.3	514.6	547.7	579.0
30°	444.3	464.5	480.1	514.6	547.1
32.5°	409.2	430.0	444.3	480.1	513.9
35°	374.0	394.2	409.8	446.2	483.3
37.5°	337.0	359.1	374.7	415.7	452.1
40°	301.8	322.7	341.5	384.4	418.9
42.5°	265.4	286.9	308.3	352.6	384.4
45°	230.3	250.4	279.1	319.4	346.7
47.5°	204.9	217.9	251.1	284.9	310.9
50°	188.0	193.2	223.8	253.7	275.2
52.5°	171.1	175.0	195.8	223.1	239.4
55°	155.5	158.7	170.4	193.2	203.6
57.5°	138.6	141.8	151.6	164.6	170.4
60°	124.9	127.5	135.3	137.3	136.0
62.5°	111.2	115.1	119.0	114.5	112.5
65°	98.2	104.1	103.4	97.6	96.3
67.5°	86.5	92.4	89.1	83.3	81.3
70°	74.8	80.7	76.1	70.3	68.3
72.5°	63.7	70.3	63.1	57.9	56.6
75°	53.3	58.5	51.4	47.5	45.5
77.5°	43.6	47.5	41.0	37.7	36.4
80°	33.8	36.4	31.2	29.3	28.6
82.5°	24.7	26.0	22.8	24.1	23.4
85°	16.3	16.9	17.6	18.2	16.3
87.5°	7.8	11.1	11.1	10.4	8.5
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	14.77	16.23	15.14	16.55	16.86	15.84	17.30	16.21	17.62	17.93
	3H	16.47	17.78	16.85	18.11	18.47	16.93	18.24	17.30	18.56	18.93
	4H	17.12	18.35	17.52	18.70	19.08	17.33	18.55	17.73	18.90	19.28
	6H	17.62	18.76	18.04	19.13	19.52	17.64	18.77	18.05	19.14	19.53
	8H	17.80	18.87	18.22	19.26	19.67	17.77	18.85	18.20	19.24	19.64
	12H	17.92	18.95	18.35	19.34	19.77	17.89	18.92	18.32	19.31	19.74
4H	2H	15.37	16.60	15.77	16.95	17.33	16.24	17.47	16.64	17.82	18.20
	3H	17.30	18.32	17.71	18.72	19.12	17.56	18.58	17.97	18.98	19.38
	4H	18.11	19.03	18.54	19.44	19.88	18.08	19.00	18.51	19.41	19.85
	6H	18.76	19.55	19.22	20.00	20.46	18.51	19.31	18.97	19.75	20.21
	8H	18.98	19.72	19.44	20.17	20.64	18.70	19.45	19.17	19.89	20.36
	12H	19.15	19.82	19.64	20.30	20.77	18.89	19.55	19.37	20.03	20.50
8H	4H	18.35	19.09	18.81	19.54	20.01	18.33	19.07	18.79	19.52	19.98
	6H	19.14	19.75	19.63	20.24	20.72	18.87	19.49	19.37	19.98	20.46
	8H	19.45	20.00	19.96	20.51	21.00	19.15	19.70	19.67	20.21	20.70
	12H	19.72	20.21	20.23	20.70	21.26	19.44	19.93	19.95	20.43	20.99
12H	4H	18.36	19.02	18.84	19.50	19.98	18.35	19.02	18.84	19.50	19.97
	6H	19.17	19.72	19.69	20.23	20.72	18.93	19.48	19.44	19.99	20.48
	8H	19.55	20.03	20.06	20.53	21.09	19.27	19.76	19.78	20.25	20.82