

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: P1059254

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059254
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
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-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

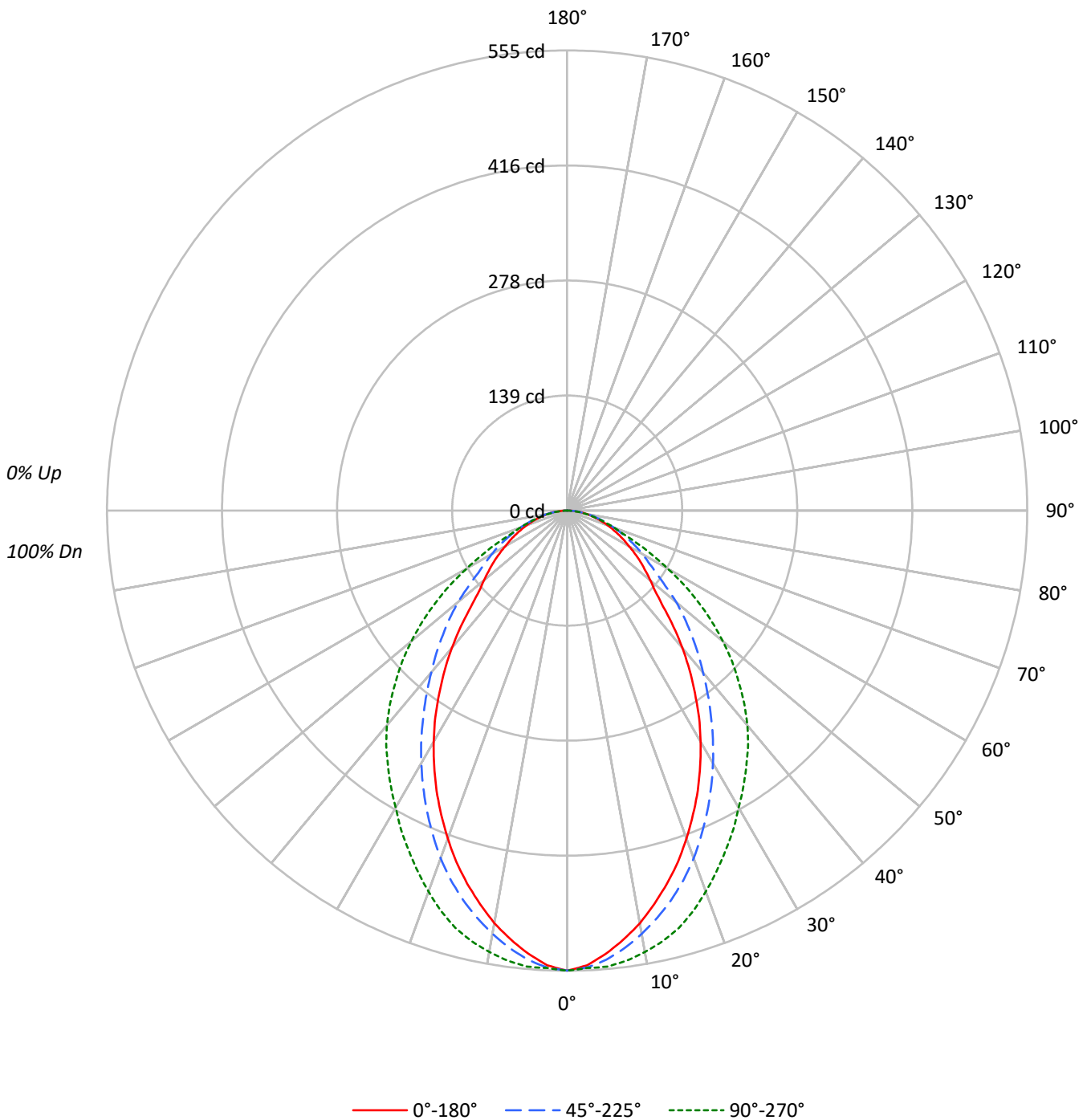
Lumens per Lamp: N/A
Luminaire Lumens: 1002.2 lumens
Efficiency: N/A
Efficacy: 51.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53					51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43					41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6515	6515	6515
5°	6325	6410	6509
10°	6026	6181	6445
15°	5661	5907	6334
20°	5258	5576	6112
25°	4829	5183	5858
30°	4366	4771	5609
35°	3850	4336	5399
40°	3311	3909	5184
45°	2722	3521	4861
50°	2388	3137	4479
55°	2211	2676	3968
60°	2031	2459	3283
65°	1898	2259	2584
70°	1785	2053	2053
75°	1683	1887	1769
80°	1582	1718	1494
85°	1495	1671	1145

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4861 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.3	5.1
10°-20°	137.5	13.7
20°-30°	186.5	18.6
30°-40°	195.0	19.5
40°-50°	169.1	16.9
50°-60°	125.8	12.6
60°-70°	80.7	8.1
70°-80°	43.3	4.3
80°-90°	13.1	1.3
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°	375.3	37.4
0°-40°	570.3	56.9
0°-60°	865.2	86.3
0°-90°	1002.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1002.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	537	546	544	548	552	50
15°	466	477	486	505	521	131
25°	373	384	400	427	452	171
35°	269	282	302	341	377	168
45°	164	176	212	258	293	129
55°	108	111	131	168	194	97
65°	68	74	81	86	93	68
75°	37	43	42	40	39	39
85°	11	14	12	10	8	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.8	554.8	554.8	554.8	554.8
2.5°	549.0	556.8	551.6	551.6	552.2
5°	536.6	545.7	543.8	547.7	552.2
7.5°	521.7	531.4	532.1	541.2	547.7
10°	505.4	515.2	518.4	531.4	540.5
12.5°	485.9	496.9	502.8	519.1	532.1
15°	465.7	476.8	485.9	505.4	521.0
17.5°	444.3	455.3	467.0	489.1	506.1
20°	420.8	432.6	446.2	468.3	489.1
22.5°	396.8	409.1	423.4	447.5	470.9
25°	372.7	384.4	400.0	426.7	452.1
27.5°	347.3	359.7	376.0	405.2	433.9
30°	322.0	334.3	351.9	383.1	413.7
32.5°	296.0	308.3	327.2	362.3	395.5
35°	268.6	281.6	302.5	340.8	376.6
37.5°	242.6	255.0	278.4	320.7	358.4
40°	216.0	229.0	255.0	300.5	338.2
42.5°	189.9	202.9	233.5	279.0	316.1
45°	163.9	176.3	212.0	257.6	292.7
47.5°	143.8	152.9	191.9	234.8	269.9
50°	130.7	134.0	171.7	212.7	245.2
52.5°	119.0	121.6	149.6	190.6	219.9
55°	108.0	110.6	130.7	167.8	193.8
57.5°	96.9	100.2	116.4	144.4	167.8
60°	86.5	90.4	104.7	123.6	139.8
62.5°	77.4	82.0	93.0	104.7	115.8
65°	68.3	74.2	81.3	86.5	93.0
67.5°	59.8	66.3	70.2	71.6	72.2
70°	52.0	58.5	59.8	59.8	59.8
72.5°	44.2	51.4	50.1	49.4	48.8
75°	37.1	42.9	41.6	39.7	39.0
77.5°	29.9	35.1	33.2	31.9	29.9
80°	23.4	27.3	25.4	24.1	22.1
82.5°	17.6	20.2	18.2	16.9	15.0
85°	11.1	13.7	12.4	10.4	8.5
87.5°	5.9	7.8	6.5	5.9	3.3
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	13.30	14.78	13.66	15.09	15.41	16.05	17.54	16.42	17.85	18.16
	3H	15.01	16.33	15.38	16.66	17.03	17.07	18.40	17.45	18.73	19.09
	4H	15.67	16.91	16.07	17.26	17.64	17.44	18.68	17.84	19.03	19.41
	6H	16.17	17.32	16.58	17.68	18.08	17.69	18.84	18.11	19.21	19.60
	8H	16.35	17.44	16.77	17.83	18.23	17.76	18.86	18.19	19.25	19.65
	12H	16.47	17.52	16.90	17.90	18.33	17.80	18.85	18.23	19.23	19.66
4H	2H	14.07	15.32	14.47	15.67	16.05	16.32	17.57	16.72	17.92	18.30
	3H	16.00	17.03	16.41	17.43	17.83	17.58	18.61	17.99	19.01	19.41
	4H	16.81	17.74	17.24	18.15	18.59	18.07	18.99	18.50	19.41	19.85
	6H	17.45	18.26	17.91	18.70	19.16	18.45	19.25	18.90	19.70	20.16
	8H	17.68	18.43	18.14	18.88	19.34	18.56	19.31	19.02	19.76	20.23
	12H	17.85	18.52	18.33	19.00	19.48	18.63	19.30	19.11	19.78	20.25
8H	4H	17.13	17.88	17.59	18.33	18.79	18.26	19.01	18.72	19.46	19.92
	6H	17.92	18.54	18.42	19.04	19.51	18.75	19.37	19.24	19.86	20.34
	8H	18.25	18.81	18.76	19.32	19.81	18.92	19.48	19.44	19.99	20.48
	12H	18.53	19.02	19.04	19.52	20.08	19.05	19.55	19.56	20.04	20.61
12H	4H	17.15	17.83	17.63	18.30	18.78	18.27	18.95	18.75	19.42	19.90
	6H	17.97	18.53	18.49	19.05	19.53	18.78	19.34	19.30	19.85	20.34
	8H	18.37	18.86	18.88	19.36	19.92	19.01	19.51	19.52	20.00	20.57