

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058201

Luminaire Tested: S122RDR-H1005D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058201
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D830-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

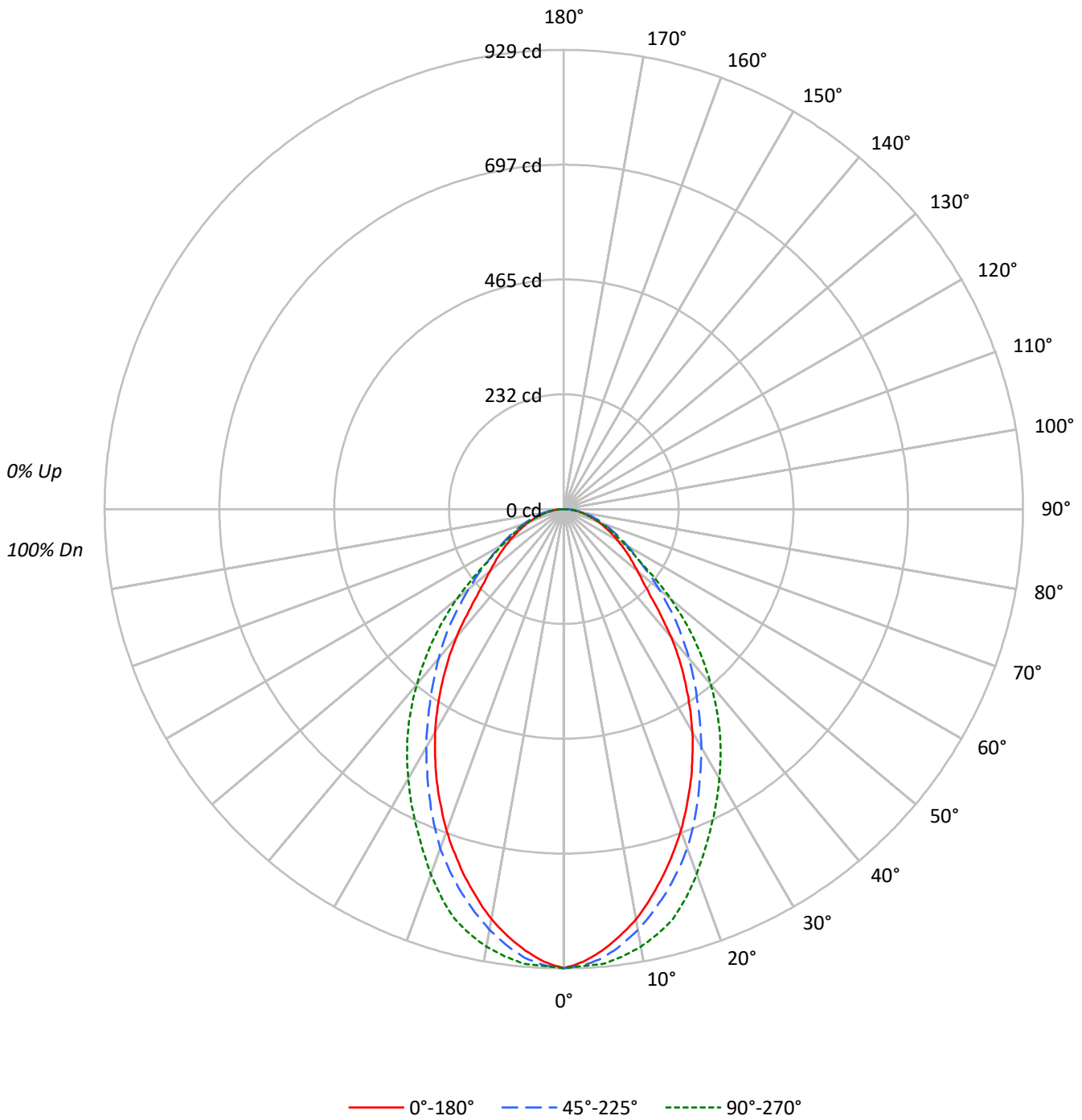
Lumens per Lamp: N/A
Luminaire Lumens: 1512.4 lumens
Efficiency: N/A
Efficacy: 41.4 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	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	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17139	17139	17139
5°	16604	16878	17104
10°	15786	16191	16847
15°	14731	15323	16377
20°	13606	14347	15432
25°	12377	13092	14382
30°	11086	11862	13413
35°	9657	10599	12389
40°	8149	9481	11138
45°	6472	8372	9744
50°	5572	7197	8087
55°	5073	6158	6203
60°	4628	5473	5274
65°	4240	4943	4650
70°	3928	4580	4143
75°	3650	4328	3650
80°	3443	4155	3294
85°	3430	4277	2858

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9744 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.7	5.7
10°-20°	226.7	15.0
20°-30°	298.3	19.7
30°-40°	299.9	19.8
40°-50°	243.1	16.1
50°-60°	167.4	11.1
60°-70°	109.6	7.2
70°-80°	61.0	4.0
80°-90°	20.7	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°	610.7	40.4
0°-40°	910.6	60.2
0°-60°	1321.1	87.4
0°-90°	1512.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1512.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	896	914	911	915	923	84
15°	771	790	802	832	857	216
25°	608	624	643	671	706	279
35°	429	449	470	512	550	267
45°	248	276	321	349	373	196
55°	158	175	191	196	193	141
65°	97	116	113	108	106	97
75°	51	63	61	54	51	55
85°	16	22	20	18	14	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	928.8	928.8	928.8	928.8	928.8
2.5°	916.6	932.8	923.4	923.4	924.7
5°	896.4	913.9	911.2	915.3	923.4
7.5°	870.8	889.7	889.7	901.8	912.6
10°	842.5	861.4	864.1	882.9	899.1
12.5°	807.5	826.3	834.4	858.7	880.2
15°	771.1	789.9	802.1	831.7	857.3
17.5°	732.0	750.8	767.0	798.0	823.6
20°	692.9	710.4	730.6	757.6	785.9
22.5°	649.7	668.6	687.5	713.1	745.4
25°	607.9	624.1	643.0	671.3	706.4
27.5°	563.5	581.0	598.5	632.2	668.6
30°	520.3	537.9	556.7	591.8	629.5
32.5°	474.5	493.4	512.2	551.3	590.4
35°	428.7	448.9	470.5	512.2	550.0
37.5°	384.2	405.7	431.4	474.5	506.8
40°	338.3	361.3	393.6	431.4	462.4
42.5°	289.8	318.1	357.2	389.6	417.9
45°	248.0	276.3	320.8	349.1	373.4
47.5°	217.0	239.9	283.1	307.3	327.6
50°	194.1	211.6	250.7	268.3	281.7
52.5°	175.2	192.8	219.7	231.9	235.9
55°	157.7	175.2	191.4	195.5	192.8
57.5°	140.2	159.1	168.5	164.5	164.5
60°	125.4	145.6	148.3	142.9	142.9
62.5°	110.5	130.8	130.8	124.0	124.0
65°	97.1	115.9	113.2	107.8	106.5
67.5°	84.9	102.4	98.4	93.0	91.7
70°	72.8	89.0	84.9	78.2	76.8
72.5°	62.0	76.8	71.4	66.1	63.4
75°	51.2	63.4	60.7	53.9	51.2
77.5°	41.8	51.2	48.5	43.1	40.4
80°	32.4	40.4	39.1	33.7	31.0
82.5°	24.3	31.0	29.7	25.6	21.6
85°	16.2	21.6	20.2	17.5	13.5
87.5°	8.1	14.8	13.5	12.1	6.7
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	16.60	18.04	16.97	18.36	18.67	16.96	18.40	17.33	18.72	19.03
	3H	18.15	19.44	18.52	19.76	20.13	18.31	19.60	18.69	19.93	20.29
	4H	18.72	19.92	19.12	20.27	20.65	18.79	20.00	19.19	20.35	20.73
	6H	19.15	20.26	19.56	20.63	21.02	19.14	20.26	19.56	20.63	21.02
	8H	19.30	20.36	19.73	20.75	21.15	19.26	20.32	19.69	20.71	21.11
	12H	19.42	20.43	19.85	20.81	21.24	19.34	20.35	19.77	20.73	21.16
4H	2H	17.19	18.40	17.59	18.75	19.13	17.48	18.68	17.88	19.03	19.41
	3H	19.01	20.01	19.42	20.41	20.81	19.05	20.05	19.46	20.45	20.85
	4H	19.76	20.66	20.19	21.07	21.51	19.65	20.55	20.09	20.97	21.41
	6H	20.34	21.13	20.80	21.57	22.03	20.13	20.92	20.59	21.36	21.82
	8H	20.55	21.29	21.02	21.73	22.20	20.30	21.03	20.76	21.47	21.94
	12H	20.72	21.37	21.21	21.85	22.33	20.42	21.07	20.90	21.55	22.02
8H	4H	20.04	20.77	20.51	21.22	21.69	19.95	20.69	20.42	21.13	21.60
	6H	20.80	21.40	21.30	21.89	22.37	20.57	21.17	21.07	21.67	22.15
	8H	21.12	21.66	21.64	22.17	22.66	20.82	21.36	21.34	21.87	22.36
	12H	21.41	21.89	21.92	22.38	22.95	21.03	21.51	21.54	22.00	22.57
12H	4H	20.06	20.71	20.54	21.19	21.66	19.99	20.64	20.47	21.12	21.59
	6H	20.86	21.40	21.37	21.91	22.40	20.65	21.19	21.16	21.70	22.19
	8H	21.26	21.74	21.77	22.23	22.80	20.97	21.45	21.48	21.94	22.51