

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: P1058232

Luminaire Tested: S122RDR-H1005D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058232
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D927-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

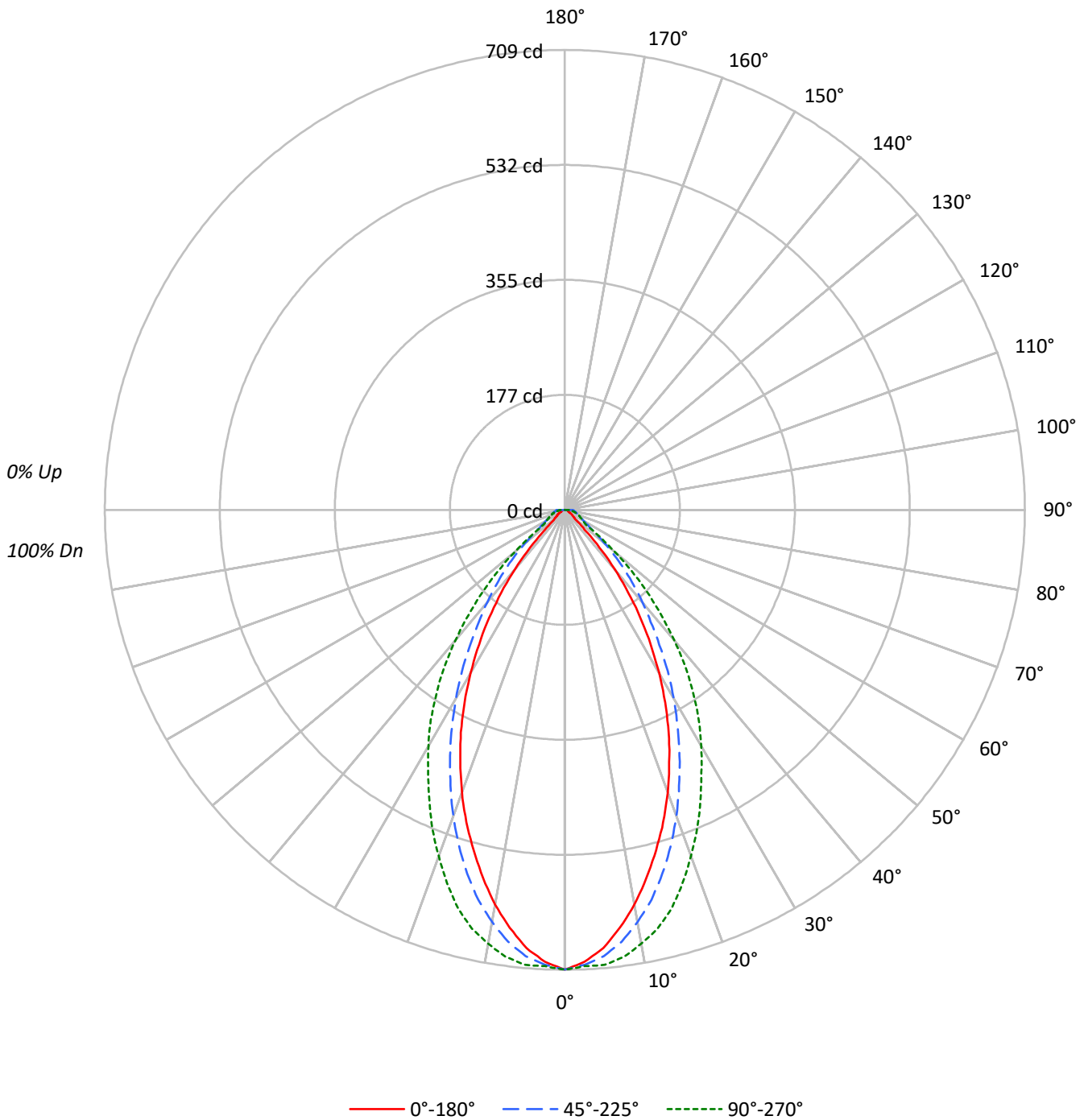
Lumens per Lamp: N/A
Luminaire Lumens: 771.4 lumens
Efficiency: N/A
Efficacy: 21.1 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13077	13077	13077
5°	12560	12792	13044
10°	11580	12089	12728
15°	10377	11091	12154
20°	9108	9865	11156
25°	7712	8519	10066
30°	6185	7153	8964
35°	4573	5722	7765
40°	2869	4480	6311
45°	1125	3374	4676
50°	554	2279	2865
55°	438	1496	1277
60°	336	1214	1174
65°	249	1140	1140
70°	308	1160	1160
75°	321	1290	1212
80°	478	1690	1328
85°	953	2879	1927

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 5288 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.7	8.4
10°-20°	163.7	21.2
20°-30°	195.8	25.4
30°-40°	164.8	21.4
40°-50°	93.8	12.2
50°-60°	37.0	4.8
60°-70°	23.3	3.0
70°-80°	17.3	2.2
80°-90°	11.0	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°	424.2	55.0
0°-40°	588.9	76.3
0°-60°	719.8	93.3
0°-90°	771.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	771.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	678	693	691	698	704	63
15°	543	562	581	615	636	152
25°	379	396	418	462	494	173
35°	203	221	254	308	345	126
45°	43	76	129	162	179	41
55°	14	30	46	48	40	12
65°	6	26	26	25	26	6
75°	4	18	18	17	17	5
85°	4	12	14	12	9	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	708.7	708.7	708.7	708.7	708.7
2.5°	697.4	709.9	701.9	703.1	704.2
5°	678.1	692.9	690.6	698.5	704.2
7.5°	649.8	665.6	671.3	684.9	695.1
10°	618.0	636.2	645.2	666.8	679.3
12.5°	581.7	602.1	615.8	643.0	661.1
15°	543.2	562.5	580.6	614.6	636.2
17.5°	504.6	523.9	543.2	580.6	603.3
20°	463.8	481.9	502.4	542.0	568.1
22.5°	420.7	440.0	460.4	501.2	533.0
25°	378.8	395.8	418.4	461.5	494.4
27.5°	334.5	351.5	376.5	420.7	455.9
30°	290.3	307.3	335.7	381.0	420.7
32.5°	246.1	264.2	294.8	344.7	384.4
35°	203.0	221.1	254.0	308.4	344.7
37.5°	161.0	181.4	217.7	271.0	305.0
40°	119.1	142.9	186.0	233.6	262.0
42.5°	79.4	108.9	156.5	196.2	220.0
45°	43.1	76.0	129.3	162.2	179.2
47.5°	23.8	48.8	103.2	129.3	139.5
50°	19.3	34.0	79.4	98.7	99.8
52.5°	15.9	30.6	59.0	70.3	64.6
55°	13.6	29.5	46.5	47.6	39.7
57.5°	11.3	28.3	38.6	34.0	34.0
60°	9.1	28.3	32.9	30.6	31.8
62.5°	6.8	28.3	29.5	27.2	28.3
65°	5.7	26.1	26.1	24.9	26.1
67.5°	5.7	23.8	23.8	22.7	23.8
70°	5.7	22.7	21.5	21.5	21.5
72.5°	4.5	20.4	20.4	19.3	19.3
75°	4.5	18.1	18.1	17.0	17.0
77.5°	4.5	17.0	17.0	15.9	14.7
80°	4.5	14.7	15.9	14.7	12.5
82.5°	4.5	13.6	14.7	13.6	10.2
85°	4.5	12.5	13.6	12.5	9.1
87.5°	3.4	12.5	12.5	10.2	6.8
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	6.61	7.83	6.98	8.14	8.46	8.64	9.87	9.01	10.18	10.49
	3H	8.16	9.25	8.54	9.58	9.94	10.62	11.70	11.00	12.03	12.40
	4H	8.71	9.73	9.12	10.08	10.46	11.53	12.54	11.94	12.90	13.28
	6H	9.27	10.20	9.68	10.57	10.96	12.42	13.35	12.83	13.72	14.11
	8H	9.56	10.44	9.99	10.83	11.24	12.82	13.70	13.25	14.09	14.50
	12H	9.92	10.76	10.35	11.14	11.57	13.26	14.11	13.70	14.49	14.92
4H	2H	7.80	8.81	8.21	9.17	9.55	9.27	10.28	9.67	10.63	11.01
	3H	10.01	10.84	10.42	11.25	11.65	11.51	12.34	11.92	12.75	13.15
	4H	11.06	11.80	11.49	12.23	12.67	12.58	13.33	13.02	13.75	14.19
	6H	11.95	12.60	12.41	13.04	13.51	13.69	14.34	14.16	14.79	15.25
	8H	12.33	12.94	12.80	13.39	13.86	14.21	14.82	14.69	15.27	15.74
	12H	12.75	13.29	13.24	13.77	14.25	14.79	15.33	15.28	15.81	16.29
8H	4H	11.86	12.46	12.33	12.91	13.38	13.07	13.68	13.54	14.13	14.60
	6H	13.24	13.73	13.74	14.23	14.71	14.47	14.97	14.97	15.46	15.95
	8H	13.96	14.40	14.48	14.92	15.41	15.21	15.66	15.73	16.17	16.66
	12H	14.71	15.10	15.22	15.60	16.17	16.04	16.44	16.56	16.93	17.51
12H	4H	12.02	12.56	12.51	13.04	13.51	13.17	13.71	13.66	14.19	14.67
	6H	13.57	14.02	14.09	14.53	15.02	14.69	15.13	15.21	15.65	16.14
	8H	14.48	14.88	15.00	15.37	15.95	15.57	15.97	16.09	16.46	17.03