

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: P1058259

Luminaire Tested: S122RDR-H1005D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058259
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-H1005D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

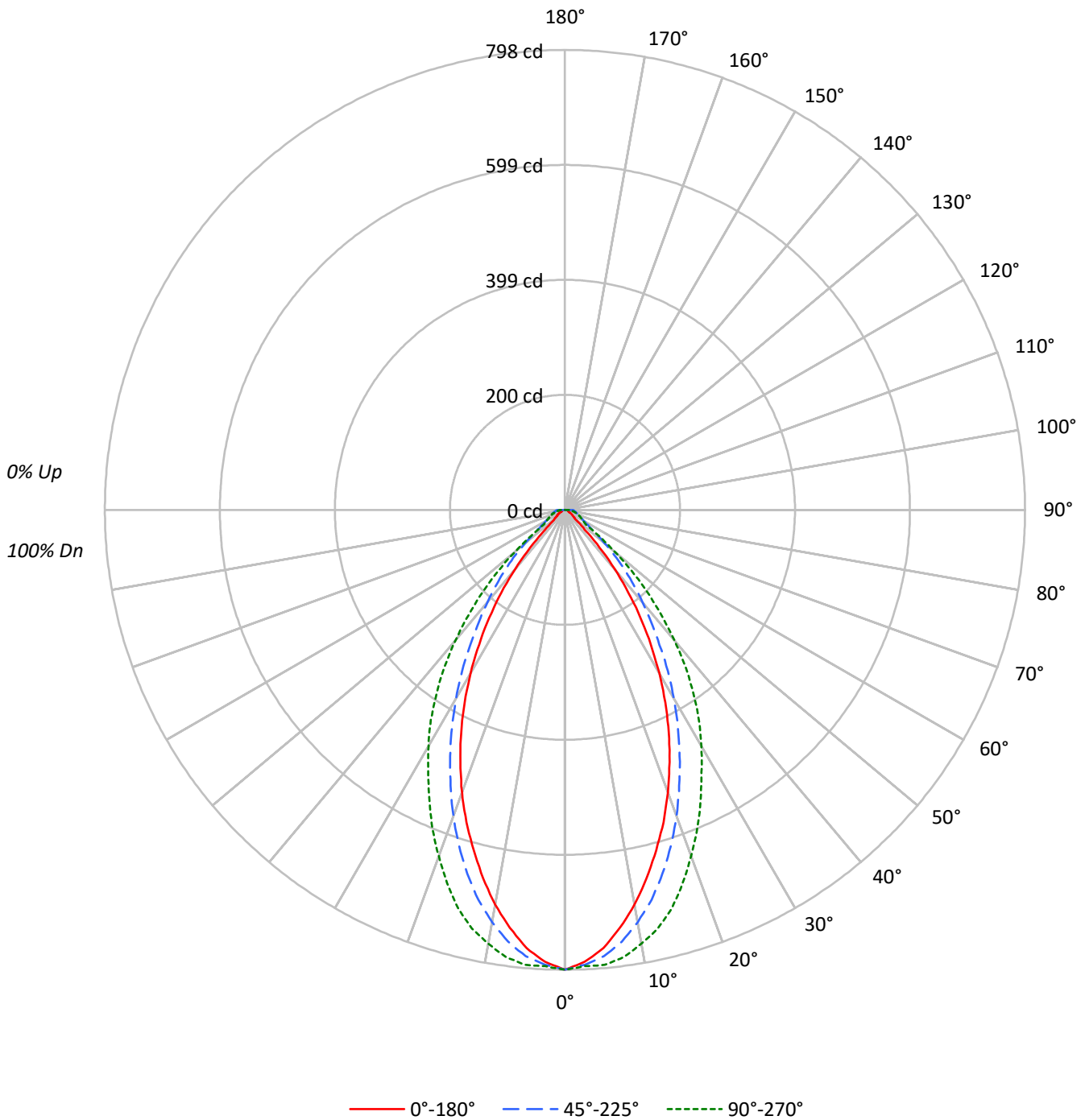
Lumens per Lamp: N/A
Luminaire Lumens: 868.3 lumens
Efficiency: N/A
Efficacy: 23.8 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	14721	14721	14721
5°	14139	14400	14683
10°	13035	13609	14326
15°	11680	12484	13680
20°	10252	11105	12558
25°	8679	9590	11330
30°	6963	8050	10091
35°	5147	6440	8740
40°	3228	5042	7104
45°	1266	3797	5264
50°	623	2566	3224
55°	492	1683	1438
60°	376	1365	1318
65°	279	1284	1284
70°	345	1311	1311
75°	364	1454	1362
80°	542	1902	1488
85°	1080	3239	2160

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 5922 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.9	8.4
10°-20°	184.2	21.2
20°-30°	220.4	25.4
30°-40°	185.5	21.4
40°-50°	105.6	12.2
50°-60°	41.7	4.8
60°-70°	26.2	3.0
70°-80°	19.5	2.2
80°-90°	12.4	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°	477.5	55.0
0°-40°	662.9	76.3
0°-60°	810.2	93.3
0°-90°	868.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	868.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	763	780	777	786	793	71
15°	611	633	654	692	716	171
25°	426	446	471	520	556	194
35°	228	249	286	347	388	142
45°	48	86	146	182	202	46
55°	15	33	52	54	45	14
65°	6	29	29	28	29	7
75°	5	20	20	19	19	6
85°	5	14	15	14	10	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	797.8	797.8	797.8	797.8	797.8
2.5°	785.0	799.1	790.1	791.4	792.7
5°	763.3	779.9	777.4	786.3	792.7
7.5°	731.4	749.3	755.7	771.0	782.5
10°	695.7	716.1	726.3	750.6	764.6
12.5°	654.8	677.8	693.1	723.8	744.2
15°	611.4	633.1	653.5	691.8	716.1
17.5°	568.0	589.7	611.4	653.5	679.1
20°	522.1	542.5	565.5	610.1	639.5
22.5°	473.6	495.3	518.2	564.2	599.9
25°	426.3	445.5	471.0	519.5	556.5
27.5°	376.6	395.7	423.8	473.6	513.1
30°	326.8	345.9	377.8	428.9	473.6
32.5°	277.0	297.4	331.9	388.0	432.7
35°	228.5	248.9	285.9	347.2	388.0
37.5°	181.3	204.2	245.1	305.1	343.4
40°	134.0	160.8	209.3	262.9	294.9
42.5°	89.4	122.5	176.2	220.8	247.6
45°	48.5	85.5	145.5	182.5	201.7
47.5°	26.8	54.9	116.2	145.5	157.0
50°	21.7	38.3	89.4	111.1	112.3
52.5°	17.9	34.5	66.4	79.1	72.8
55°	15.3	33.2	52.3	53.6	44.7
57.5°	12.8	31.9	43.4	38.3	38.3
60°	10.2	31.9	37.0	34.5	35.7
62.5°	7.7	31.9	33.2	30.6	31.9
65°	6.4	29.4	29.4	28.1	29.4
67.5°	6.4	26.8	26.8	25.5	26.8
70°	6.4	25.5	24.3	24.3	24.3
72.5°	5.1	23.0	23.0	21.7	21.7
75°	5.1	20.4	20.4	19.1	19.1
77.5°	5.1	19.1	19.1	17.9	16.6
80°	5.1	16.6	17.9	16.6	14.0
82.5°	5.1	15.3	16.6	15.3	11.5
85°	5.1	14.0	15.3	14.0	10.2
87.5°	3.8	14.0	14.0	11.5	7.7
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	7.03	8.26	7.40	8.57	8.88	9.06	10.28	9.43	10.59	10.91
	3H	8.58	9.66	8.96	9.99	10.36	11.03	12.12	11.42	12.45	12.82
	4H	9.13	10.14	9.54	10.50	10.88	11.95	12.96	12.35	13.31	13.69
	6H	9.69	10.62	10.10	10.99	11.39	12.83	13.76	13.24	14.13	14.53
	8H	9.98	10.86	10.41	11.25	11.66	13.23	14.11	13.66	14.50	14.91
	12H	10.34	11.18	10.77	11.57	12.00	13.67	14.52	14.11	14.90	15.33
4H	2H	8.22	9.24	8.63	9.59	9.97	9.68	10.69	10.09	11.05	11.43
	3H	10.42	11.26	10.84	11.66	12.07	11.93	12.76	12.34	13.17	13.57
	4H	11.47	12.22	11.91	12.64	13.09	12.99	13.74	13.43	14.16	14.61
	6H	12.37	13.02	12.83	13.46	13.93	14.11	14.75	14.57	15.20	15.67
	8H	12.75	13.36	13.22	13.81	14.28	14.63	15.23	15.10	15.68	16.15
	12H	13.17	13.71	13.66	14.19	14.67	15.20	15.74	15.69	16.22	16.70
8H	4H	12.27	12.88	12.74	13.33	13.80	13.49	14.09	13.96	14.54	15.01
	6H	13.66	14.15	14.16	14.65	15.13	14.88	15.38	15.39	15.88	16.36
	8H	14.37	14.82	14.90	15.34	15.83	15.62	16.07	16.15	16.59	17.08
	12H	15.12	15.52	15.64	16.01	16.58	16.45	16.85	16.97	17.34	17.92
12H	4H	12.44	12.97	12.92	13.46	13.93	13.59	14.12	14.07	14.61	15.08
	6H	13.99	14.43	14.51	14.95	15.44	15.10	15.55	15.63	16.06	16.56
	8H	14.90	15.30	15.42	15.79	16.36	15.99	16.38	16.50	16.88	17.45