

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: P1058436

Luminaire Tested: S122RDR-H485D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058436
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D950-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

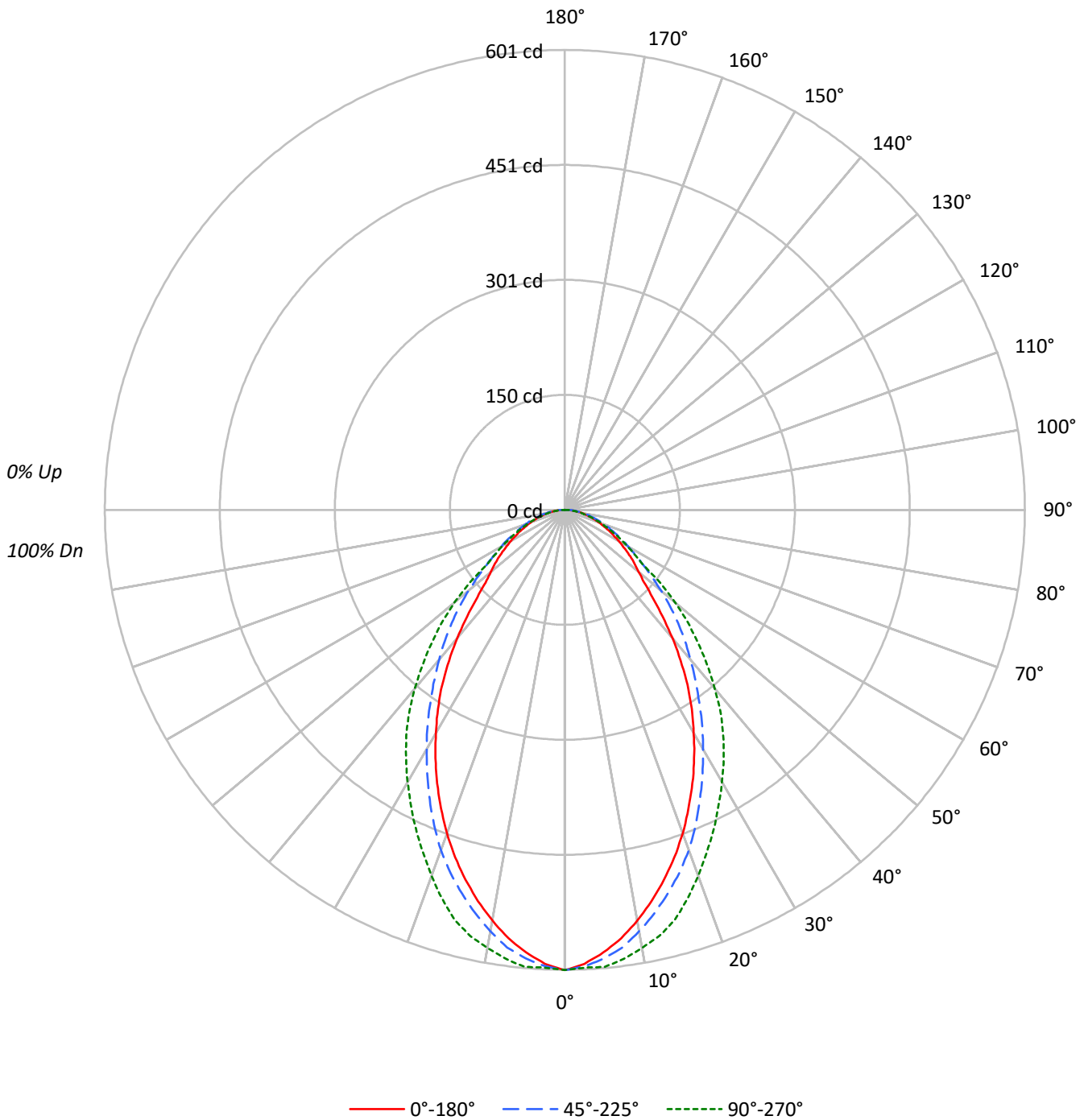
Lumens per Lamp: N/A
Luminaire Lumens: 980.5 lumens
Efficiency: N/A
Efficacy: 56.4 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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

TEST NUMBER: P1058436

CATALOG NUMBER: S122RDR-H485D950-X4F0-XX-UDD-WVL-W

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			100	
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87			87	
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76			76	
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67			67	
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59			59	
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52			52	
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			47	
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43			43	
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39			39	
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36			36	
10	59	47	40	35	58	46	39	35	46	39	35	45	39	35	44	38	34	33			33	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11097	11097	11097
5°	10756	10901	11105
10°	10215	10482	10894
15°	9561	9920	10600
20°	8838	9296	9995
25°	8032	8506	9376
30°	7178	7690	8751
35°	6294	6891	8130
40°	5266	6152	7337
45°	4220	5451	6412
50°	3620	4696	5383
55°	3307	3996	3973
60°	3008	3532	3462
65°	2738	3161	3021
70°	2514	2897	2687
75°	2353	2674	2353
80°	2200	2476	2062
85°	2181	2604	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6412 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.5	5.7
10°-20°	147.0	15.0
20°-30°	193.9	19.8
30°-40°	195.2	19.9
40°-50°	158.9	16.2
50°-60°	108.3	11.0
60°-70°	70.3	7.2
70°-80°	38.7	3.9
80°-90°	12.6	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°	396.4	40.4
0°-40°	591.6	60.3
0°-60°	858.8	87.6
0°-90°	980.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	980.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	601	601	601	601	601	
5°	581	592	588	594	600	54
15°	500	514	519	541	555	140
25°	394	407	418	436	460	181
35°	279	294	306	332	361	173
45°	162	182	209	227	246	127
55°	103	113	124	125	124	92
65°	63	74	72	69	69	62
75°	33	41	38	34	33	35
85°	10	14	12	10	8	11
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	601.4	601.4	601.4	601.4	601.4
2.5°	593.7	603.4	596.9	597.6	598.8
5°	580.7	591.7	588.5	593.7	599.5
7.5°	564.6	575.6	576.9	584.6	591.7
10°	545.2	557.5	559.4	571.0	581.4
12.5°	523.8	537.4	540.0	556.8	570.4
15°	500.5	513.5	519.3	540.6	554.9
17.5°	476.0	488.3	497.3	516.7	532.9
20°	450.1	461.7	473.4	490.8	509.0
22.5°	422.3	435.2	446.2	463.7	484.4
25°	394.5	407.4	417.8	436.5	460.5
27.5°	366.0	379.0	389.3	409.4	435.2
30°	336.9	350.5	360.9	383.5	410.7
32.5°	308.5	322.1	333.7	357.6	386.1
35°	279.4	293.6	305.9	332.4	360.9
37.5°	248.3	264.5	280.0	306.5	334.3
40°	218.6	236.7	255.4	280.0	304.6
42.5°	188.8	208.9	232.2	252.9	275.5
45°	161.7	181.7	208.9	227.0	245.7
47.5°	140.3	157.1	186.3	201.1	217.9
50°	126.1	137.7	163.6	175.3	187.5
52.5°	114.5	124.2	142.3	150.0	156.5
55°	102.8	113.2	124.2	124.8	123.5
57.5°	91.2	102.8	108.6	104.1	106.7
60°	81.5	93.1	95.7	91.2	93.8
62.5°	71.1	84.1	84.1	79.5	80.8
65°	62.7	74.4	72.4	68.6	69.2
67.5°	54.3	66.0	62.7	58.8	58.8
70°	46.6	57.6	53.7	49.8	49.8
72.5°	39.4	48.5	45.9	41.4	40.7
75°	33.0	40.7	37.5	33.6	33.0
77.5°	26.5	33.0	30.4	27.2	25.9
80°	20.7	26.5	23.3	20.7	19.4
82.5°	15.5	20.0	17.5	14.9	13.6
85°	10.3	13.6	12.3	9.7	8.4
87.5°	5.2	9.1	7.8	6.5	5.2
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	15.08	16.52	15.44	16.83	17.15	15.33	16.77	15.69	17.08	17.39
	3H	16.61	17.90	16.99	18.22	18.59	16.68	17.97	17.06	18.30	18.66
	4H	17.17	18.38	17.57	18.73	19.11	17.17	18.37	17.57	18.72	19.10
	6H	17.59	18.71	18.01	19.07	19.47	17.51	18.63	17.93	18.99	19.39
	8H	17.75	18.80	18.17	19.19	19.60	17.62	18.68	18.05	19.07	19.47
	12H	17.86	18.87	18.29	19.25	19.68	17.69	18.70	18.12	19.09	19.52
4H	2H	15.65	16.86	16.05	17.21	17.59	15.85	17.05	16.25	17.40	17.78
	3H	17.46	18.46	17.87	18.86	19.26	17.43	18.42	17.84	18.83	19.23
	4H	18.20	19.10	18.63	19.51	19.95	18.02	18.92	18.45	19.33	19.77
	6H	18.78	19.56	19.24	20.01	20.47	18.49	19.27	18.95	19.71	20.17
	8H	18.99	19.72	19.46	20.17	20.64	18.64	19.37	19.10	19.81	20.28
	12H	19.16	19.81	19.64	20.29	20.76	18.75	19.40	19.23	19.88	20.35
8H	4H	18.46	19.19	18.93	19.64	20.11	18.31	19.04	18.77	19.48	19.95
	6H	19.22	19.82	19.72	20.31	20.79	18.90	19.50	19.40	20.00	20.47
	8H	19.54	20.08	20.06	20.59	21.08	19.12	19.66	19.64	20.18	20.66
	12H	19.82	20.30	20.34	20.79	21.36	19.31	19.78	19.82	20.28	20.84
12H	4H	18.48	19.13	18.96	19.61	20.08	18.34	18.99	18.83	19.47	19.94
	6H	19.26	19.81	19.78	20.32	20.81	18.97	19.51	19.49	20.02	20.51
	8H	19.66	20.14	20.17	20.63	21.20	19.26	19.73	19.77	20.23	20.79