

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: P1058391

Luminaire Tested: S122RDR-H485D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058391
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-H485D850-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, 80 CRI LEDS
Ballast/Driver: -

Summary

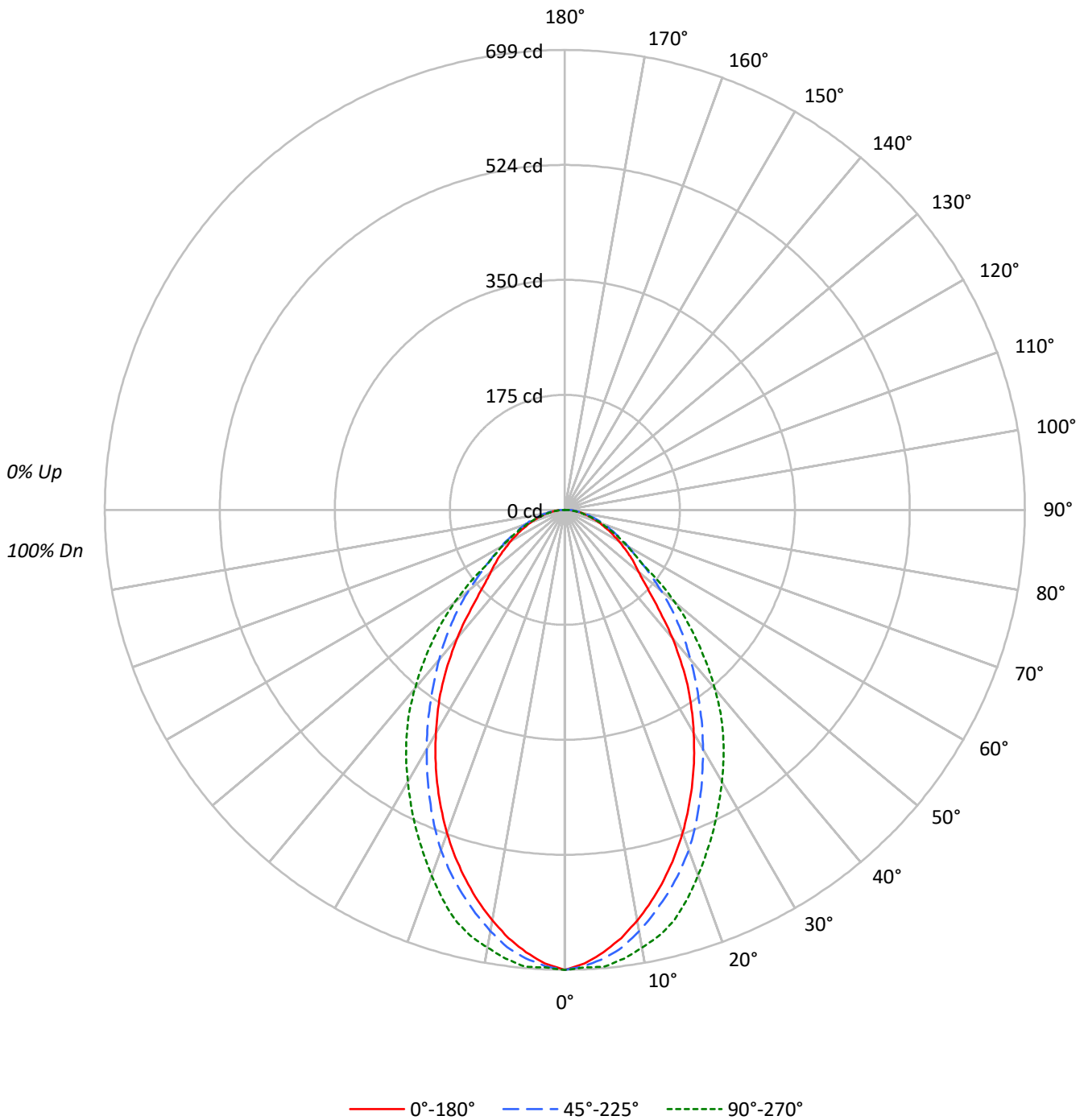
Lumens per Lamp: N/A
Luminaire Lumens: 1139.8 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

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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	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	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	46	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	40	35	46	39	35	45	39	35	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12902	12902	12902
5°	12505	12672	12909
10°	11874	12185	12663
15°	11116	11533	12322
20°	10274	10806	11617
25°	9337	9887	10899
30°	8346	8938	10172
35°	7317	8010	9450
40°	6121	7154	8530
45°	4903	6336	7456
50°	4208	5460	6258
55°	3844	4642	4620
60°	3495	4108	4023
65°	3183	3676	3510
70°	2919	3367	3124
75°	2731	3108	2731
80°	2561	2880	2402
85°	2541	3028	2075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7456 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	5.7
10°-20°	170.9	15.0
20°-30°	225.4	19.8
30°-40°	226.9	19.9
40°-50°	184.7	16.2
50°-60°	125.9	11.0
60°-70°	81.7	7.2
70°-80°	45.0	3.9
80°-90°	14.7	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°	460.8	40.4
0°-40°	687.7	60.3
0°-60°	998.4	87.6
0°-90°	1139.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1139.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	699	699	699	699	699	
5°	675	688	684	690	697	63
15°	582	597	604	628	645	163
25°	459	474	486	507	535	210
35°	325	341	356	386	420	202
45°	188	211	243	264	286	148
55°	120	132	144	145	144	107
65°	73	86	84	80	80	72
75°	38	47	44	39	38	41
85°	12	16	14	11	10	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	699.2	699.2	699.2	699.2	699.2
2.5°	690.1	701.4	693.9	694.6	696.1
5°	675.1	687.9	684.1	690.1	696.9
7.5°	656.3	669.1	670.6	679.6	687.9
10°	633.7	648.0	650.3	663.8	675.8
12.5°	608.9	624.7	627.7	647.3	663.1
15°	581.9	596.9	603.7	628.5	645.0
17.5°	553.3	567.6	578.1	600.7	619.5
20°	523.2	536.8	550.3	570.6	591.6
22.5°	490.9	505.9	518.7	539.0	563.1
25°	458.6	473.6	485.6	507.4	535.3
27.5°	425.5	440.5	452.6	475.9	505.9
30°	391.7	407.5	419.5	445.8	477.4
32.5°	358.6	374.4	387.9	415.7	448.8
35°	324.8	341.3	355.6	386.4	419.5
37.5°	288.7	307.5	325.5	356.3	388.7
40°	254.1	275.1	297.0	325.5	354.1
42.5°	219.5	242.8	269.9	293.9	320.3
45°	187.9	211.2	242.8	263.9	285.7
47.5°	163.1	182.7	216.5	233.8	253.3
50°	146.6	160.1	190.2	203.7	218.0
52.5°	133.1	144.3	165.4	174.4	181.9
55°	119.5	131.6	144.3	145.1	143.6
57.5°	106.0	119.5	126.3	121.0	124.0
60°	94.7	108.3	111.3	106.0	109.0
62.5°	82.7	97.7	97.7	92.5	94.0
65°	72.9	86.5	84.2	79.7	80.4
67.5°	63.1	76.7	72.9	68.4	68.4
70°	54.1	66.9	62.4	57.9	57.9
72.5°	45.9	56.4	53.4	48.1	47.4
75°	38.3	47.4	43.6	39.1	38.3
77.5°	30.8	38.3	35.3	31.6	30.1
80°	24.1	30.8	27.1	24.1	22.6
82.5°	18.0	23.3	20.3	17.3	15.8
85°	12.0	15.8	14.3	11.3	9.8
87.5°	6.0	10.5	9.0	7.5	6.0
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	15.60	17.04	15.97	17.35	17.67	15.85	17.29	16.21	17.60	17.92
	3H	17.13	18.42	17.51	18.75	19.11	17.21	18.49	17.59	18.82	19.19
	4H	17.69	18.90	18.09	19.25	19.63	17.69	18.89	18.09	19.24	19.62
	6H	18.12	19.23	18.53	19.60	19.99	18.04	19.15	18.45	19.52	19.91
	8H	18.27	19.33	18.70	19.72	20.12	18.15	19.20	18.57	19.59	20.00
	12H	18.38	19.39	18.81	19.78	20.21	18.22	19.23	18.65	19.61	20.04
4H	2H	16.17	17.38	16.58	17.73	18.11	16.37	17.58	16.77	17.93	18.31
	3H	17.98	18.98	18.39	19.38	19.78	17.95	18.95	18.36	19.35	19.75
	4H	18.72	19.62	19.15	20.04	20.48	18.54	19.44	18.98	19.86	20.30
	6H	19.31	20.09	19.77	20.53	20.99	19.01	19.79	19.47	20.24	20.70
	8H	19.52	20.25	19.98	20.69	21.16	19.16	19.89	19.63	20.34	20.81
	12H	19.68	20.33	20.17	20.81	21.28	19.27	19.92	19.76	20.40	20.87
8H	4H	18.99	19.72	19.45	20.16	20.63	18.83	19.56	19.30	20.01	20.48
	6H	19.74	20.34	20.24	20.84	21.31	19.43	20.03	19.92	20.52	21.00
	8H	20.07	20.61	20.58	21.12	21.61	19.65	20.19	20.16	20.70	21.19
	12H	20.35	20.82	20.86	21.32	21.88	19.83	20.31	20.34	20.80	21.37
12H	4H	19.00	19.65	19.48	20.13	20.60	18.87	19.52	19.35	20.00	20.47
	6H	19.79	20.33	20.30	20.84	21.33	19.49	20.03	20.01	20.55	21.03
	8H	20.18	20.66	20.70	21.15	21.72	19.78	20.26	20.29	20.75	21.32