

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057975

Luminaire Tested: S122RDRP-S485D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057975
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D840-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

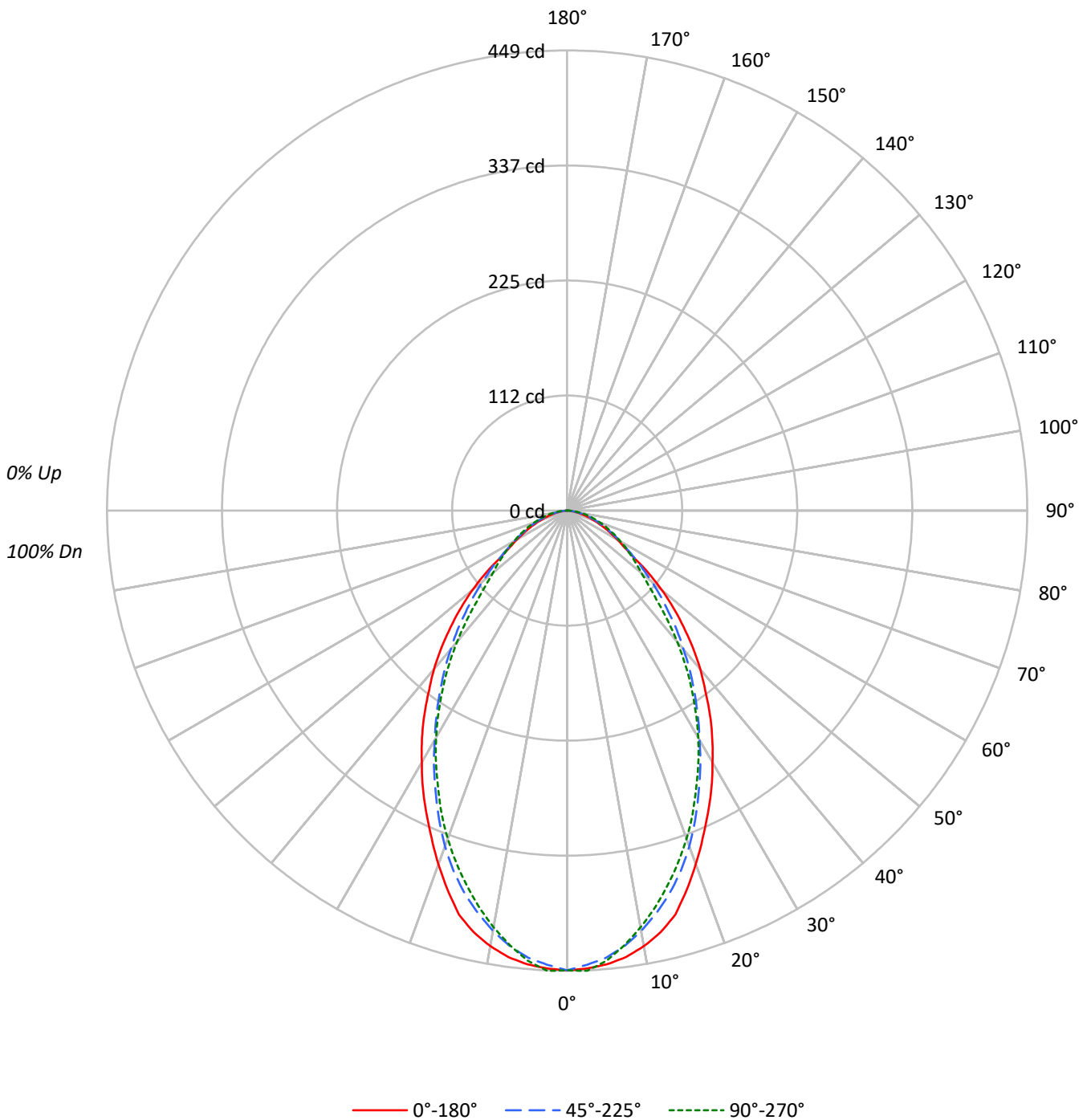
Lumens per Lamp: N/A
Luminaire Lumens: 681.4 lumens
Efficiency: N/A
Efficacy: 34.8 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																												
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77																												
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68																												
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61																												
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54																												
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49																												
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44																												
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41																												
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37																												
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8278	8278	8278
5°	8232	8111	8165
10°	8085	7804	7737
15°	7792	7383	7233
20°	7211	6845	6692
25°	6619	6181	6065
30°	6043	5510	5450
35°	5472	4877	4764
40°	4871	4252	4028
45°	4194	3653	3225
50°	3465	3077	2707
55°	2506	2551	2435
60°	2081	2188	2214
65°	1777	1904	2026
70°	1462	1694	1851
75°	1219	1426	1683
80°	914	1137	1520
85°	296	614	1355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4194 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.5	6.1
10°-20°	109.2	16.0
20°-30°	141.3	20.7
30°-40°	138.6	20.3
40°-50°	109.1	16.0
50°-60°	71.5	10.5
60°-70°	43.6	6.4
70°-80°	21.8	3.2
80°-90°	4.7	0.7
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°	292.0	42.9
0°-40°	430.7	63.2
0°-60°	611.3	89.7
0°-90°	681.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	681.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	449	449	449	449	449	
5°	444	444	438	441	441	42
15°	408	402	386	382	379	114
25°	325	314	304	302	298	149
35°	243	229	216	216	212	151
45°	161	151	140	130	124	124
55°	78	82	79	76	76	74
65°	41	41	44	46	46	41
75°	17	18	20	23	24	18
85°	1	2	3	5	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	448.6	448.6	448.6	448.6	448.6
2.5°	447.2	447.9	443.6	447.9	449.4
5°	444.4	444.4	437.9	440.8	440.8
7.5°	439.4	438.6	428.6	428.6	427.9
10°	431.5	428.6	416.5	414.4	412.9
12.5°	421.5	416.5	402.2	398.6	396.5
15°	407.9	402.2	386.5	381.5	378.6
17.5°	387.9	382.2	368.6	362.9	360.1
20°	367.2	358.6	348.6	343.6	340.8
22.5°	345.8	335.8	326.5	322.9	320.1
25°	325.1	314.3	303.6	302.2	297.9
27.5°	305.1	292.2	281.5	280.8	277.2
30°	283.6	270.0	258.6	259.3	255.8
32.5°	263.6	250.8	237.2	237.9	233.6
35°	242.9	229.3	216.5	215.8	211.5
37.5°	221.5	208.6	196.5	193.6	189.3
40°	202.2	189.3	176.5	171.5	167.2
42.5°	181.5	170.0	158.6	150.7	145.0
45°	160.7	150.7	140.0	130.0	123.6
47.5°	140.7	132.9	123.6	111.4	107.2
50°	120.7	115.0	107.2	96.4	94.3
52.5°	100.0	97.9	92.9	85.7	85.0
55°	77.9	82.2	79.3	76.4	75.7
57.5°	65.7	66.4	68.6	67.9	67.9
60°	56.4	56.4	59.3	60.0	60.0
62.5°	47.9	48.6	51.4	52.9	52.9
65°	40.7	41.4	43.6	45.7	46.4
67.5°	33.6	35.0	37.1	39.3	40.0
70°	27.1	28.6	31.4	33.6	34.3
72.5°	22.1	22.9	25.7	27.9	28.6
75°	17.1	17.9	20.0	22.9	23.6
77.5°	12.1	13.6	15.7	17.9	19.3
80°	8.6	9.3	10.7	13.6	14.3
82.5°	5.0	5.7	7.1	9.3	10.0
85°	1.4	2.1	2.9	5.0	6.4
87.5°	0.0	0.0	0.0	1.4	2.9
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	13.46	14.86	13.83	15.17	15.49	13.65	15.04	14.01	15.36	15.67
	3H	14.60	15.84	14.97	16.17	16.53	15.11	16.35	15.49	16.68	17.05
	4H	14.95	16.11	15.35	16.46	16.84	15.65	16.81	16.05	17.16	17.55
	6H	15.13	16.20	15.54	16.57	16.96	16.06	17.14	16.48	17.50	17.90
	8H	15.16	16.18	15.59	16.57	16.97	16.19	17.21	16.62	17.60	18.00
	12H	15.14	16.12	15.57	16.50	16.93	16.27	17.25	16.71	17.63	18.06
4H	2H	13.92	15.08	14.32	15.43	15.82	14.07	15.24	14.48	15.59	15.97
	3H	15.26	16.22	15.67	16.62	17.02	15.75	16.70	16.16	17.11	17.51
	4H	15.71	16.57	16.14	16.98	17.42	16.41	17.27	16.85	17.69	18.13
	6H	15.98	16.72	16.44	17.17	17.63	16.95	17.69	17.41	18.14	18.60
	8H	16.02	16.72	16.49	17.16	17.63	17.12	17.81	17.58	18.26	18.73
	12H	16.02	16.63	16.50	17.11	17.59	17.24	17.85	17.72	18.33	18.81
8H	4H	15.92	16.61	16.39	17.06	17.53	16.56	17.26	17.03	17.70	18.17
	6H	16.27	16.84	16.77	17.33	17.81	17.19	17.76	17.69	18.26	18.74
	8H	16.35	16.86	16.86	17.37	17.86	17.43	17.94	17.95	18.45	18.94
	12H	16.36	16.81	16.87	17.30	17.87	17.61	18.06	18.12	18.56	19.12
12H	4H	15.93	16.55	16.42	17.03	17.50	16.55	17.16	17.03	17.64	18.12
	6H	16.29	16.80	16.81	17.32	17.81	17.19	17.70	17.71	18.21	18.70
	8H	16.41	16.86	16.92	17.35	17.92	17.46	17.91	17.98	18.41	18.98