

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: P1057971

Luminaire Tested: S122RDRP-S485D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057971
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: S122RDRP-S485D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

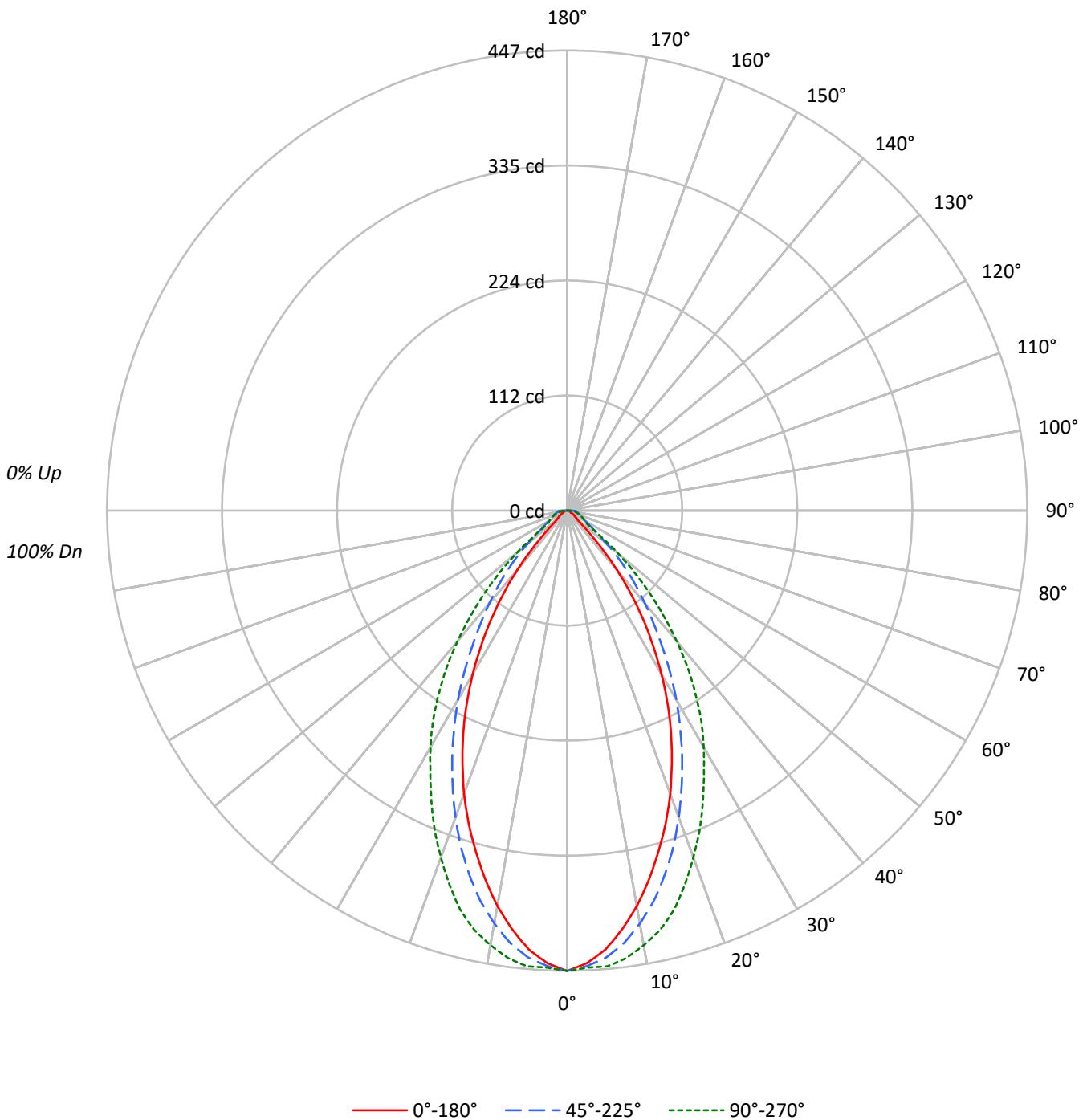
Lumens per Lamp: N/A
Luminaire Lumens: 486.8 lumens
Efficiency: N/A
Efficacy: 24.8 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: S122RDRP-S485D840-X4F0-XX-UDD-BVL-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	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°	8252	8252	8252
5°	7926	8072	8232
10°	7307	7630	8031
15°	6549	6999	7668
20°	5748	6225	7040
25°	4866	5375	6352
30°	3903	4513	5657
35°	2886	3611	4899
40°	1809	2828	3982
45°	710	2129	2951
50°	350	1438	1809
55°	277	943	804
60°	210	768	738
65°	157	720	720
70°	194	734	734
75°	207	813	763
80°	308	1063	839
85°	614	1821	1207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 3342 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.8	8.4
10°-20°	103.3	21.2
20°-30°	123.5	25.4
30°-40°	104.0	21.4
40°-50°	59.2	12.2
50°-60°	23.4	4.8
60°-70°	14.7	3.0
70°-80°	10.9	2.2
80°-90°	7.0	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°	267.7	55.0
0°-40°	371.6	76.3
0°-60°	454.2	93.3
0°-90°	486.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	486.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	447	447	447	447	447	
5°	428	437	436	441	444	40
15°	343	355	366	388	401	96
25°	239	250	264	291	312	109
35°	128	140	160	195	218	79
45°	27	48	82	102	113	26
55°	9	19	29	30	25	8
65°	4	16	16	16	16	4
75°	3	11	11	11	11	3
85°	3	8	9	8	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	447.2	447.2	447.2	447.2	447.2
2.5°	440.1	447.9	442.9	443.6	444.4
5°	427.9	437.2	435.8	440.8	444.4
7.5°	410.0	420.0	423.6	432.2	438.6
10°	390.0	401.4	407.2	420.8	428.6
12.5°	367.1	380.0	388.6	405.7	417.2
15°	342.8	354.9	366.4	387.8	401.4
17.5°	318.4	330.6	342.8	366.4	380.7
20°	292.7	304.1	317.0	342.0	358.5
22.5°	265.5	277.6	290.5	316.3	336.3
25°	239.0	249.7	264.0	291.2	312.0
27.5°	211.1	221.8	237.6	265.5	287.7
30°	183.2	193.9	211.8	240.4	265.5
32.5°	155.3	166.7	186.0	217.5	242.6
35°	128.1	139.5	160.3	194.6	217.5
37.5°	101.6	114.5	137.4	171.0	192.5
40°	75.1	90.2	117.4	147.4	165.3
42.5°	50.1	68.7	98.7	123.8	138.8
45°	27.2	47.9	81.6	102.3	113.1
47.5°	15.0	30.8	65.1	81.6	88.0
50°	12.2	21.5	50.1	62.3	63.0
52.5°	10.0	19.3	37.2	44.4	40.8
55°	8.6	18.6	29.3	30.1	25.0
57.5°	7.2	17.9	24.3	21.5	21.5
60°	5.7	17.9	20.8	19.3	20.0
62.5°	4.3	17.9	18.6	17.2	17.9
65°	3.6	16.5	16.5	15.7	16.5
67.5°	3.6	15.0	15.0	14.3	15.0
70°	3.6	14.3	13.6	13.6	13.6
72.5°	2.9	12.9	12.9	12.2	12.2
75°	2.9	11.4	11.4	10.7	10.7
77.5°	2.9	10.7	10.7	10.0	9.3
80°	2.9	9.3	10.0	9.3	7.9
82.5°	2.9	8.6	9.3	8.6	6.4
85°	2.9	7.9	8.6	7.9	5.7
87.5°	2.1	7.9	7.9	6.4	4.3
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	5.03	6.25	5.40	6.56	6.88	7.06	8.28	7.42	8.59	8.91
	3H	6.57	7.66	6.95	7.99	8.35	9.02	10.11	9.41	10.44	10.81
	4H	7.13	8.14	7.53	8.49	8.88	9.94	10.95	10.34	11.30	11.69
	6H	7.69	8.62	8.11	8.99	9.39	10.82	11.75	11.24	12.12	12.52
	8H	7.99	8.87	8.42	9.26	9.67	11.22	12.10	11.65	12.49	12.90
	12H	8.36	9.20	8.79	9.58	10.01	11.66	12.50	12.09	12.89	13.32
4H	2H	6.22	7.23	6.62	7.58	7.97	7.68	8.69	8.08	9.04	9.43
	3H	8.42	9.25	8.83	9.66	10.06	9.92	10.75	10.33	11.16	11.56
	4H	9.46	10.21	9.90	10.63	11.08	10.98	11.73	11.42	12.15	12.60
	6H	10.36	11.01	10.83	11.46	11.92	12.10	12.74	12.56	13.19	13.66
	8H	10.75	11.36	11.22	11.80	12.28	12.62	13.22	13.09	13.67	14.14
	12H	11.18	11.71	11.66	12.20	12.67	13.19	13.73	13.68	14.21	14.68
8H	4H	10.26	10.87	10.73	11.31	11.79	11.47	12.08	11.94	12.53	13.00
	6H	11.64	12.14	12.15	12.64	13.12	12.87	13.37	13.38	13.87	14.35
	8H	12.37	12.81	12.89	13.33	13.82	13.61	14.06	14.14	14.57	15.07
	12H	13.13	13.52	13.64	14.02	14.59	14.44	14.84	14.96	15.33	15.91
12H	4H	10.42	10.96	10.91	11.44	11.92	11.57	12.11	12.06	12.59	13.07
	6H	11.98	12.42	12.50	12.94	13.43	13.09	13.54	13.61	14.05	14.54
	8H	12.90	13.29	13.41	13.79	14.36	13.98	14.37	14.49	14.86	15.44