

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: P1058133

Luminaire Tested: S122RDRP-S865D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058133
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-S865D840-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

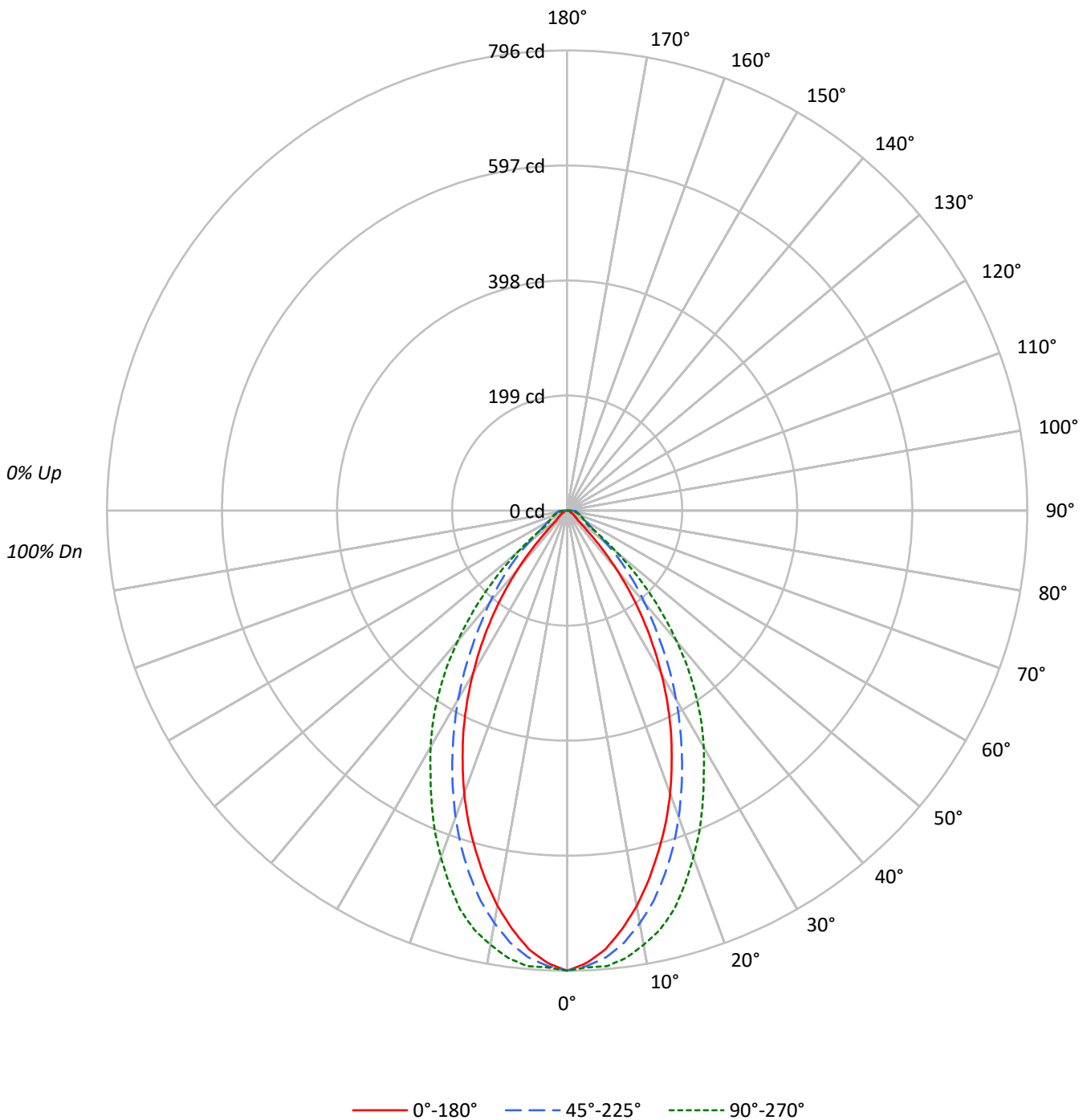
Lumens per Lamp: N/A
Luminaire Lumens: 866.2 lumens
Efficiency: N/A
Efficacy: 24.7 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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	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°	14684	14684	14684
5°	14105	14365	14648
10°	13004	13575	14291
15°	11651	12455	13647
20°	10227	11077	12528
25°	8659	9567	11304
30°	6946	8031	10065
35°	5134	6425	8720
40°	3221	5030	7084
45°	1263	3789	5250
50°	620	2558	3218
55°	492	1679	1435
60°	376	1362	1318
65°	279	1279	1279
70°	345	1306	1306
75°	364	1454	1362
80°	542	1891	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°	72.7	8.4
10°-20°	183.8	21.2
20°-30°	219.8	25.4
30°-40°	185.0	21.4
40°-50°	105.3	12.2
50°-60°	41.5	4.8
60°-70°	26.2	3.0
70°-80°	19.4	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°	476.3	55.0
0°-40°	661.3	76.3
0°-60°	808.2	93.3
0°-90°	866.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	866.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	762	778	776	784	791	71
15°	610	632	652	690	714	170
25°	425	444	470	518	555	194
35°	228	248	285	346	387	141
45°	48	85	145	182	201	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°	795.8	795.8	795.8	795.8	795.8
2.5°	783.1	797.1	788.2	789.5	790.8
5°	761.5	778.0	775.5	784.4	790.8
7.5°	729.6	747.5	753.8	769.1	780.6
10°	694.0	714.4	724.5	748.7	762.7
12.5°	653.2	676.2	691.4	722.0	742.4
15°	609.9	631.6	652.0	690.2	714.4
17.5°	566.6	588.3	609.9	652.0	677.4
20°	520.8	541.2	564.1	608.7	638.0
22.5°	472.4	494.1	517.0	562.8	598.5
25°	425.3	444.4	469.9	518.3	555.2
27.5°	375.6	394.7	422.8	472.4	511.9
30°	326.0	345.1	376.9	427.8	472.4
32.5°	276.3	296.7	331.1	387.1	431.7
35°	227.9	248.3	285.2	346.4	387.1
37.5°	180.8	203.7	244.5	304.3	342.5
40°	133.7	160.4	208.8	262.3	294.1
42.5°	89.1	122.2	175.7	220.3	247.0
45°	48.4	85.3	145.2	182.1	201.2
47.5°	26.7	54.8	115.9	145.2	156.6
50°	21.6	38.2	89.1	110.8	112.1
52.5°	17.8	34.4	66.2	78.9	72.6
55°	15.3	33.1	52.2	53.5	44.6
57.5°	12.7	31.8	43.3	38.2	38.2
60°	10.2	31.8	36.9	34.4	35.7
62.5°	7.6	31.8	33.1	30.6	31.8
65°	6.4	29.3	29.3	28.0	29.3
67.5°	6.4	26.7	26.7	25.5	26.7
70°	6.4	25.5	24.2	24.2	24.2
72.5°	5.1	22.9	22.9	21.6	21.6
75°	5.1	20.4	20.4	19.1	19.1
77.5°	5.1	19.1	19.1	17.8	16.6
80°	5.1	16.6	17.8	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	7.6
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	7.02	8.24	7.38	8.55	8.87	9.05	10.27	9.42	10.58	10.90
	3H	8.57	9.65	8.95	9.98	10.35	11.02	12.11	11.40	12.44	12.81
	4H	9.12	10.14	9.53	10.49	10.87	11.94	12.95	12.34	13.30	13.69
	6H	9.68	10.61	10.10	10.98	11.38	12.82	13.75	13.24	14.12	14.52
	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	11.56	11.99	13.67	14.51	14.11	14.90	15.33
4H	2H	8.21	9.22	8.61	9.57	9.96	9.67	10.68	10.08	11.03	11.42
	3H	10.41	11.25	10.83	11.65	12.05	11.92	12.75	12.33	13.15	13.56
	4H	11.47	12.22	11.90	12.64	13.08	12.99	13.73	13.42	14.15	14.60
	6H	12.36	13.01	12.83	13.46	13.93	14.10	14.75	14.56	15.19	15.66
	8H	12.75	13.36	13.22	13.81	14.28	14.62	15.23	15.09	15.68	16.15
	12H	13.17	13.71	13.66	14.19	14.67	15.20	15.74	15.69	16.22	16.69
8H	4H	12.27	12.87	12.74	13.32	13.79	13.48	14.08	13.95	14.53	15.00
	6H	13.65	14.15	14.16	14.65	15.13	14.88	15.37	15.38	15.87	16.35
	8H	14.37	14.82	14.90	15.34	15.83	15.62	16.07	16.14	16.58	17.08
	12H	15.12	15.52	15.64	16.01	16.59	16.45	16.85	16.97	17.34	17.91
12H	4H	12.43	12.97	12.92	13.45	13.93	13.58	14.11	14.07	14.60	15.07
	6H	13.98	14.43	14.51	14.95	15.44	15.10	15.54	15.62	16.06	16.55
	8H	14.90	15.30	15.42	15.79	16.36	15.98	16.38	16.50	16.87	17.45