

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: P1058124

Luminaire Tested: S122RDRP-S865D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058124
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-S865D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

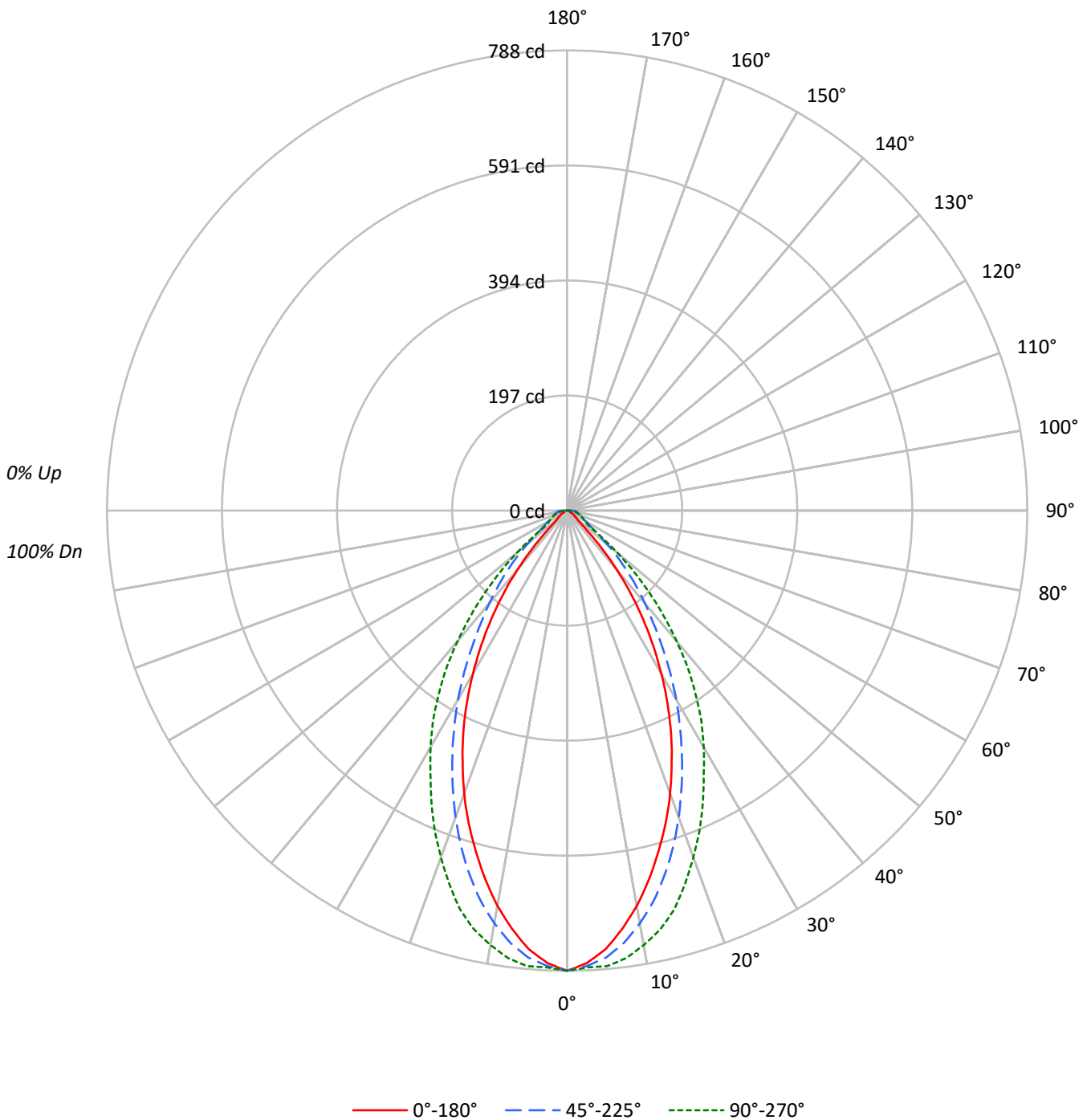
Lumens per Lamp: N/A
Luminaire Lumens: 857.8 lumens
Efficiency: N/A
Efficacy: 24.5 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	14542	14542	14542
5°	13966	14224	14503
10°	12876	13444	14152
15°	11538	12333	13514
20°	10127	10969	12405
25°	8574	9474	11194
30°	6878	7952	9967
35°	5084	6361	8634
40°	3189	4981	7017
45°	1250	3750	5198
50°	614	2535	3186
55°	486	1663	1419
60°	373	1351	1303
65°	275	1266	1266
70°	340	1295	1295
75°	356	1440	1347
80°	531	1881	1477
85°	1059	3197	2138

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 5880 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.0	8.4
10°-20°	182.0	21.2
20°-30°	217.7	25.4
30°-40°	183.2	21.4
40°-50°	104.3	12.2
50°-60°	41.1	4.8
60°-70°	25.9	3.0
70°-80°	19.3	2.2
80°-90°	12.3	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°	471.6	55.0
0°-40°	654.9	76.3
0°-60°	800.3	93.3
0°-90°	857.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	857.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	754	770	768	777	783	70
15°	604	625	646	683	707	169
25°	421	440	465	513	550	192
35°	226	246	282	343	383	140
45°	48	84	144	180	199	45
55°	15	33	52	53	44	14
65°	6	29	29	28	29	7
75°	5	20	20	19	19	5
85°	5	14	15	14	10	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	788.1	788.1	788.1	788.1	788.1
2.5°	775.5	789.3	780.5	781.8	783.0
5°	754.0	770.4	767.9	776.7	783.0
7.5°	722.5	740.2	746.5	761.6	772.9
10°	687.2	707.4	717.5	741.4	755.3
12.5°	646.9	669.5	684.7	714.9	735.1
15°	604.0	625.4	645.6	683.4	707.4
17.5°	561.1	582.5	604.0	645.6	670.8
20°	515.7	535.9	558.6	602.7	631.7
22.5°	467.8	489.2	511.9	557.3	592.6
25°	421.1	440.1	465.3	513.2	549.8
27.5°	372.0	390.9	418.6	467.8	506.9
30°	322.8	341.7	373.2	423.7	467.8
32.5°	273.6	293.8	327.8	383.3	427.5
35°	225.7	245.9	282.4	343.0	383.3
37.5°	179.1	201.7	242.1	301.4	339.2
40°	132.4	158.9	206.8	259.7	291.3
42.5°	88.3	121.0	174.0	218.1	244.6
45°	47.9	84.5	143.7	180.3	199.2
47.5°	26.5	54.2	114.7	143.7	155.1
50°	21.4	37.8	88.3	109.7	111.0
52.5°	17.7	34.0	65.6	78.2	71.9
55°	15.1	32.8	51.7	53.0	44.1
57.5°	12.6	31.5	42.9	37.8	37.8
60°	10.1	31.5	36.6	34.0	35.3
62.5°	7.6	31.5	32.8	30.3	31.5
65°	6.3	29.0	29.0	27.7	29.0
67.5°	6.3	26.5	26.5	25.2	26.5
70°	6.3	25.2	24.0	24.0	24.0
72.5°	5.0	22.7	22.7	21.4	21.4
75°	5.0	20.2	20.2	18.9	18.9
77.5°	5.0	18.9	18.9	17.7	16.4
80°	5.0	16.4	17.7	16.4	13.9
82.5°	5.0	15.1	16.4	15.1	11.3
85°	5.0	13.9	15.1	13.9	10.1
87.5°	3.8	13.9	13.9	11.3	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	6.99	8.21	7.35	8.52	8.84	9.01	10.23	9.38	10.54	10.86
	3H	8.53	9.62	8.91	9.95	10.32	10.99	12.07	11.37	12.41	12.77
	4H	9.09	10.10	9.49	10.45	10.84	11.90	12.91	12.31	13.27	13.65
	6H	9.64	10.57	10.06	10.94	11.34	12.79	13.72	13.20	14.09	14.48
	8H	9.93	10.81	10.36	11.20	11.61	13.19	14.07	13.62	14.46	14.87
	12H	10.29	11.13	10.72	11.51	11.94	13.63	14.47	14.07	14.86	15.29
4H	2H	8.18	9.19	8.58	9.54	9.92	9.63	10.64	10.04	11.00	11.38
	3H	10.38	11.21	10.79	11.62	12.02	11.88	12.72	12.30	13.12	13.52
	4H	11.43	12.18	11.87	12.60	13.04	12.95	13.70	13.39	14.12	14.56
	6H	12.32	12.97	12.79	13.42	13.89	14.07	14.71	14.53	15.16	15.63
	8H	12.71	13.31	13.18	13.76	14.23	14.59	15.19	15.06	15.64	16.11
	12H	13.12	13.66	13.61	14.14	14.62	15.16	15.70	15.65	16.18	16.66
8H	4H	12.23	12.84	12.70	13.29	13.76	13.44	14.05	13.92	14.50	14.97
	6H	13.61	14.11	14.12	14.61	15.09	14.85	15.34	15.35	15.84	16.32
	8H	14.33	14.78	14.85	15.29	15.79	15.58	16.03	16.11	16.54	17.04
	12H	15.08	15.47	15.60	15.97	16.54	16.41	16.81	16.93	17.30	17.88
12H	4H	12.40	12.93	12.88	13.42	13.89	13.55	14.08	14.03	14.56	15.04
	6H	13.95	14.39	14.47	14.91	15.40	15.06	15.51	15.59	16.03	16.52
	8H	14.86	15.25	15.38	15.75	16.32	15.95	16.34	16.46	16.83	17.41