

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: P1058178

Luminaire Tested: S122RDRP-S865D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058178
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-S865D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

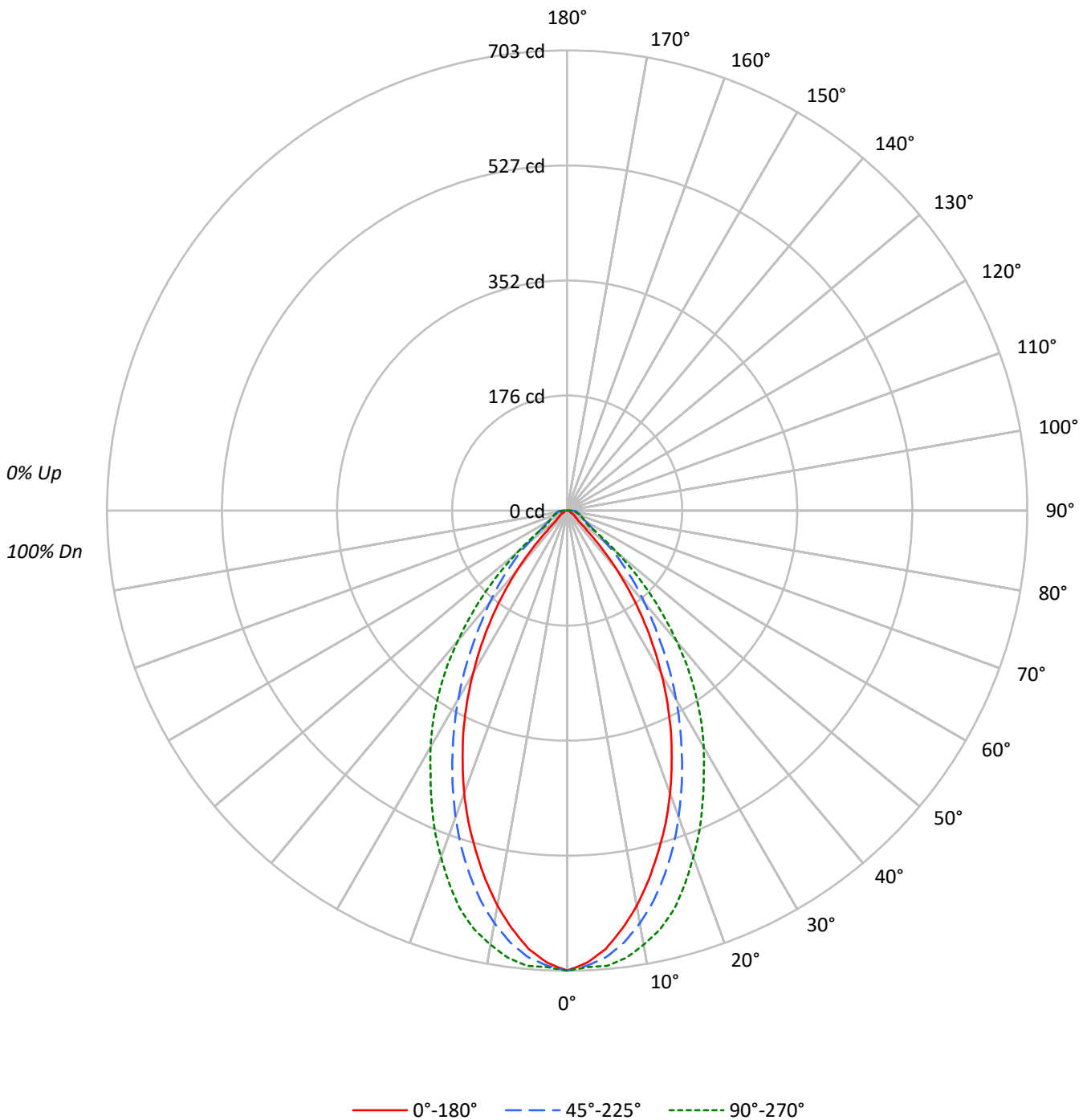
Lumens per Lamp: N/A
Luminaire Lumens: 764.9 lumens
Efficiency: N/A
Efficacy: 21.9 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	12967	12967	12967
5°	12455	12683	12933
10°	11482	11988	12619
15°	10289	10998	12050
20°	9031	9781	11061
25°	7645	8447	9980
30°	6132	7091	8887
35°	4535	5674	7699
40°	2845	4442	6256
45°	1114	3345	4637
50°	548	2259	2839
55°	434	1483	1268
60°	332	1203	1163
65°	245	1131	1131
70°	302	1155	1155
75°	321	1283	1205
80°	478	1668	1318
85°	953	2858	1905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 5246 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	8.4
10°-20°	162.3	21.2
20°-30°	194.1	25.4
30°-40°	163.4	21.4
40°-50°	93.0	12.2
50°-60°	36.7	4.8
60°-70°	23.1	3.0
70°-80°	17.2	2.2
80°-90°	10.9	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°	420.6	55.0
0°-40°	584.0	76.3
0°-60°	713.7	93.3
0°-90°	764.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	764.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	672	687	685	693	698	62
15°	539	558	576	609	631	150
25°	376	392	415	458	490	171
35°	201	219	252	306	342	125
45°	43	75	128	161	178	40
55°	14	29	46	47	39	12
65°	6	26	26	25	26	6
75°	4	18	18	17	17	5
85°	4	12	14	12	9	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	702.7	702.7	702.7	702.7	702.7
2.5°	691.5	703.9	696.0	697.1	698.2
5°	672.4	687.0	684.7	692.6	698.2
7.5°	644.3	660.0	665.6	679.1	689.2
10°	612.8	630.8	639.8	661.1	673.5
12.5°	576.8	597.0	610.5	637.5	655.5
15°	538.6	557.7	575.7	609.4	630.8
17.5°	500.3	519.5	538.6	575.7	598.2
20°	459.9	477.9	498.1	537.5	563.3
22.5°	417.1	436.3	456.5	497.0	528.5
25°	375.5	392.4	414.9	457.6	490.2
27.5°	331.7	348.6	373.3	417.1	452.0
30°	287.8	304.7	332.8	377.8	417.1
32.5°	244.0	262.0	292.3	341.8	381.2
35°	201.3	219.3	251.9	305.8	341.8
37.5°	159.7	179.9	215.9	268.7	302.5
40°	118.1	141.7	184.4	231.6	259.7
42.5°	78.7	107.9	155.2	194.5	218.1
45°	42.7	75.3	128.2	160.8	177.7
47.5°	23.6	48.3	102.3	128.2	138.3
50°	19.1	33.7	78.7	97.8	98.9
52.5°	15.7	30.4	58.5	69.7	64.1
55°	13.5	29.2	46.1	47.2	39.4
57.5°	11.2	28.1	38.2	33.7	33.7
60°	9.0	28.1	32.6	30.4	31.5
62.5°	6.7	28.1	29.2	27.0	28.1
65°	5.6	25.9	25.9	24.7	25.9
67.5°	5.6	23.6	23.6	22.5	23.6
70°	5.6	22.5	21.4	21.4	21.4
72.5°	4.5	20.2	20.2	19.1	19.1
75°	4.5	18.0	18.0	16.9	16.9
77.5°	4.5	16.9	16.9	15.7	14.6
80°	4.5	14.6	15.7	14.6	12.4
82.5°	4.5	13.5	14.6	13.5	10.1
85°	4.5	12.4	13.5	12.4	9.0
87.5°	3.4	12.4	12.4	10.1	6.7
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	6.59	7.81	6.96	8.12	8.44	8.61	9.83	8.98	10.15	10.46
	3H	8.13	9.22	8.51	9.55	9.92	10.59	11.68	10.97	12.01	12.37
	4H	8.69	9.70	9.09	10.05	10.44	11.51	12.52	11.91	12.87	13.26
	6H	9.25	10.18	9.66	10.55	10.94	12.39	13.32	12.81	13.69	14.09
	8H	9.54	10.42	9.97	10.81	11.22	12.79	13.67	13.23	14.07	14.47
	12H	9.90	10.75	10.34	11.13	11.56	13.24	14.08	13.67	14.46	14.89
4H	2H	7.78	8.79	8.18	9.14	9.53	9.24	10.25	9.64	10.60	10.98
	3H	9.98	10.81	10.39	11.22	11.62	11.48	12.32	11.90	12.72	13.13
	4H	11.03	11.78	11.47	12.20	12.65	12.56	13.31	12.99	13.73	14.17
	6H	11.93	12.58	12.39	13.02	13.49	13.67	14.31	14.13	14.76	15.23
	8H	12.32	12.92	12.79	13.37	13.84	14.19	14.79	14.66	15.24	15.71
	12H	12.74	13.27	13.22	13.76	14.23	14.77	15.30	15.25	15.78	16.26
8H	4H	11.84	12.44	12.31	12.89	13.36	13.05	13.66	13.52	14.10	14.58
	6H	13.22	13.71	13.72	14.21	14.69	14.44	14.94	14.95	15.44	15.92
	8H	13.94	14.38	14.46	14.90	15.39	15.18	15.63	15.71	16.15	16.64
	12H	14.69	15.08	15.21	15.58	16.15	16.02	16.41	16.53	16.91	17.48
12H	4H	12.00	12.53	12.49	13.02	13.49	13.15	13.68	13.64	14.17	14.64
	6H	13.55	13.99	14.07	14.51	15.00	14.66	15.11	15.18	15.62	16.12
	8H	14.46	14.86	14.98	15.35	15.93	15.55	15.94	16.06	16.44	17.01