

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



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058553

Luminaire Tested: S122RDR-H865D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058553
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

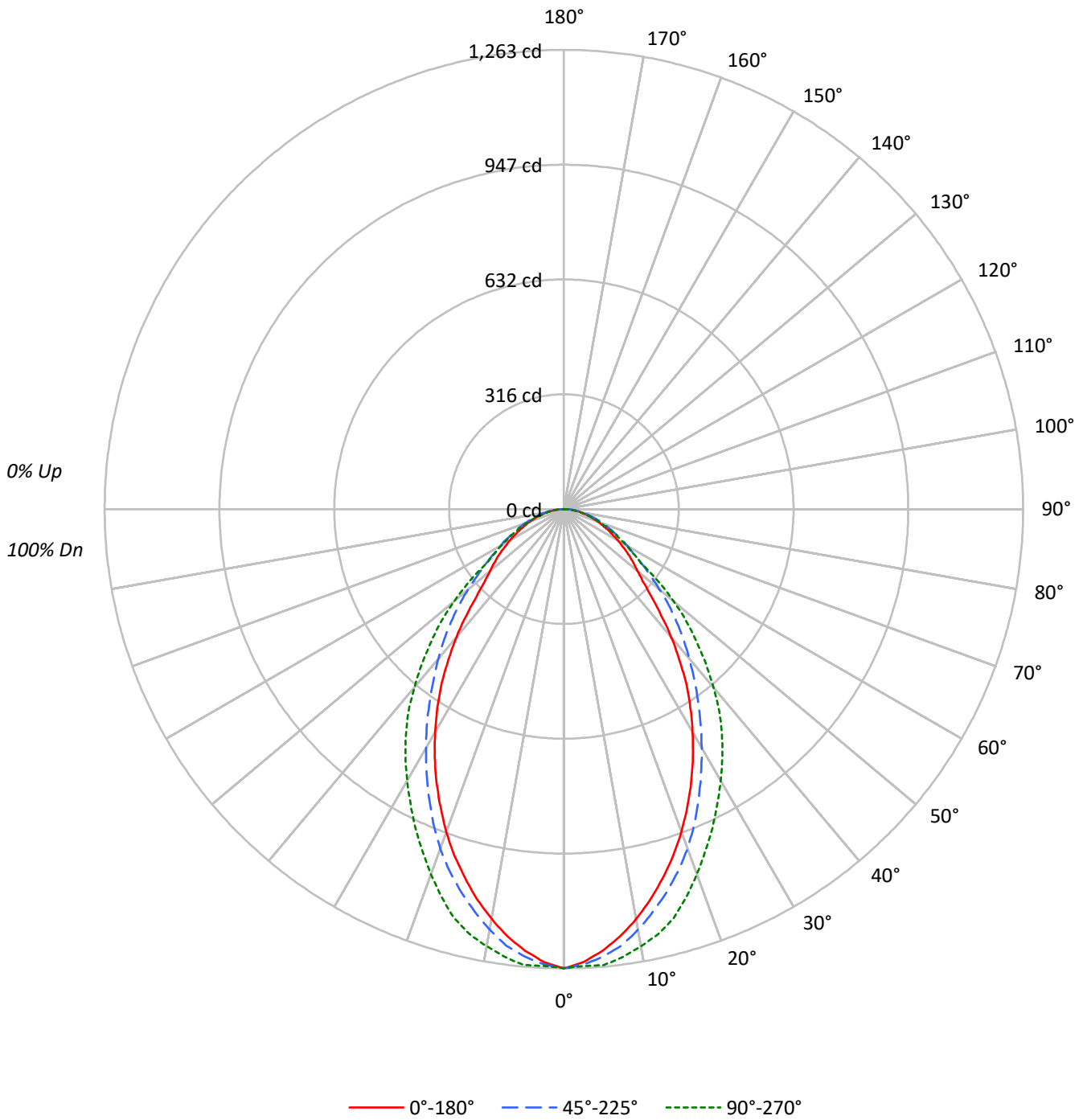
Lumens per Lamp: N/A
Luminaire Lumens: 2058.6 lumens
Efficiency: N/A
Efficacy: 66.0 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (Ain): 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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23302	23302	23302
5°	22585	22887	23315
10°	21447	22007	22872
15°	20076	20828	22255
20°	18557	19517	20984
25°	16864	17858	19684
30°	15073	16144	18371
35°	13214	14466	17068
40°	11054	12918	15404
45°	8857	11446	13465
50°	7602	9861	11305
55°	6946	8387	8342
60°	6314	7418	7267
65°	5750	6641	6344
70°	5276	6080	5643
75°	4934	5618	4934
80°	4612	5196	4325
85°	4594	5462	3747

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13465 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.5	5.7
10°-20°	308.6	15.0
20°-30°	407.1	19.8
30°-40°	409.9	19.9
40°-50°	333.6	16.2
50°-60°	227.5	11.0
60°-70°	147.6	7.2
70°-80°	81.3	3.9
80°-90°	26.5	1.3
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°	832.2	40.4
0°-40°	1242.1	60.3
0°-60°	1803.2	87.6
0°-90°	2058.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2058.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1263	1263	1263	1263	1263	
5°	1219	1242	1236	1246	1259	114
15°	1051	1078	1090	1135	1165	294
25°	828	855	877	916	967	380
35°	587	616	642	698	758	364
45°	339	382	439	477	516	267
55°	216	238	261	262	259	193
65°	132	156	152	144	145	131
75°	69	86	79	71	69	73
85°	22	28	26	20	18	24
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1262.8	1262.8	1262.8	1262.8	1262.8
2.5°	1246.5	1266.8	1253.2	1254.6	1257.3
5°	1219.3	1242.4	1235.6	1246.5	1258.7
7.5°	1185.4	1208.4	1211.2	1227.4	1242.4
10°	1144.6	1170.4	1174.5	1198.9	1220.7
12.5°	1099.8	1128.3	1133.8	1169.1	1197.6
15°	1050.9	1078.1	1090.3	1135.1	1165.0
17.5°	999.3	1025.1	1044.1	1084.9	1118.8
20°	945.0	969.5	993.9	1030.6	1068.6
22.5°	886.6	913.8	936.9	973.5	1017.0
25°	828.3	855.4	877.1	916.5	966.8
27.5°	768.5	795.7	817.4	859.5	913.8
30°	707.4	735.9	757.7	805.2	862.2
32.5°	647.7	676.2	700.6	750.9	810.6
35°	586.6	616.4	642.2	697.9	757.7
37.5°	521.4	555.3	587.9	643.6	702.0
40°	458.9	497.0	536.3	587.9	639.5
42.5°	396.5	438.6	487.4	530.9	578.4
45°	339.4	381.5	438.6	476.6	516.0
47.5°	294.6	329.9	391.0	422.3	457.6
50°	264.8	289.2	343.5	368.0	393.8
52.5°	240.3	260.7	298.7	315.0	328.6
55°	215.9	237.6	260.7	262.1	259.3
57.5°	191.4	215.9	228.1	218.6	224.0
60°	171.1	195.5	201.0	191.4	196.9
62.5°	149.4	176.5	176.5	167.0	169.7
65°	131.7	156.1	152.1	143.9	145.3
67.5°	114.1	138.5	131.7	123.6	123.6
70°	97.8	120.8	112.7	104.6	104.6
72.5°	82.8	101.8	96.4	86.9	85.5
75°	69.2	85.5	78.8	70.6	69.2
77.5°	55.7	69.2	63.8	57.0	54.3
80°	43.4	55.7	48.9	43.4	40.7
82.5°	32.6	42.1	36.7	31.2	28.5
85°	21.7	28.5	25.8	20.4	17.7
87.5°	10.9	19.0	16.3	13.6	10.9
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	17.66	19.10	18.02	19.41	19.72	17.90	19.34	18.27	19.66	19.97
	3H	19.19	20.47	19.56	20.80	21.16	19.26	20.55	19.64	20.88	21.24
	4H	19.75	20.95	20.15	21.30	21.68	19.74	20.95	20.15	21.30	21.68
	6H	20.17	21.28	20.58	21.65	22.04	20.09	21.20	20.51	21.57	21.96
	8H	20.32	21.38	20.75	21.77	22.17	20.20	21.26	20.63	21.65	22.05
	12H	20.44	21.45	20.87	21.83	22.26	20.27	21.28	20.70	21.66	22.09
4H	2H	18.23	19.44	18.63	19.78	20.16	18.43	19.63	18.83	19.98	20.36
	3H	20.03	21.03	20.45	21.43	21.84	20.00	21.00	20.42	21.40	21.81
	4H	20.77	21.67	21.21	22.09	22.53	20.60	21.50	21.03	21.91	22.35
	6H	21.36	22.14	21.82	22.59	23.05	21.07	21.85	21.53	22.29	22.75
	8H	21.57	22.30	22.04	22.75	23.21	21.22	21.94	21.68	22.39	22.86
	12H	21.74	22.39	22.22	22.87	23.34	21.32	21.97	21.81	22.45	22.93
8H	4H	21.04	21.77	21.51	22.21	22.68	20.89	21.62	21.35	22.06	22.53
	6H	21.80	22.40	22.29	22.89	23.37	21.48	22.08	21.98	22.57	23.05
	8H	22.12	22.66	22.64	23.17	23.66	21.70	22.24	22.22	22.75	23.24
	12H	22.40	22.88	22.91	23.37	23.94	21.88	22.36	22.39	22.85	23.42
12H	4H	21.05	21.70	21.54	22.18	22.66	20.92	21.57	21.41	22.05	22.52
	6H	21.84	22.38	22.36	22.89	23.38	21.55	22.09	22.06	22.60	23.09
	8H	22.24	22.72	22.75	23.21	23.78	21.83	22.31	22.34	22.80	23.37