

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: P1058471

Luminaire Tested: S122RDR-H675D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058471
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D850-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER 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

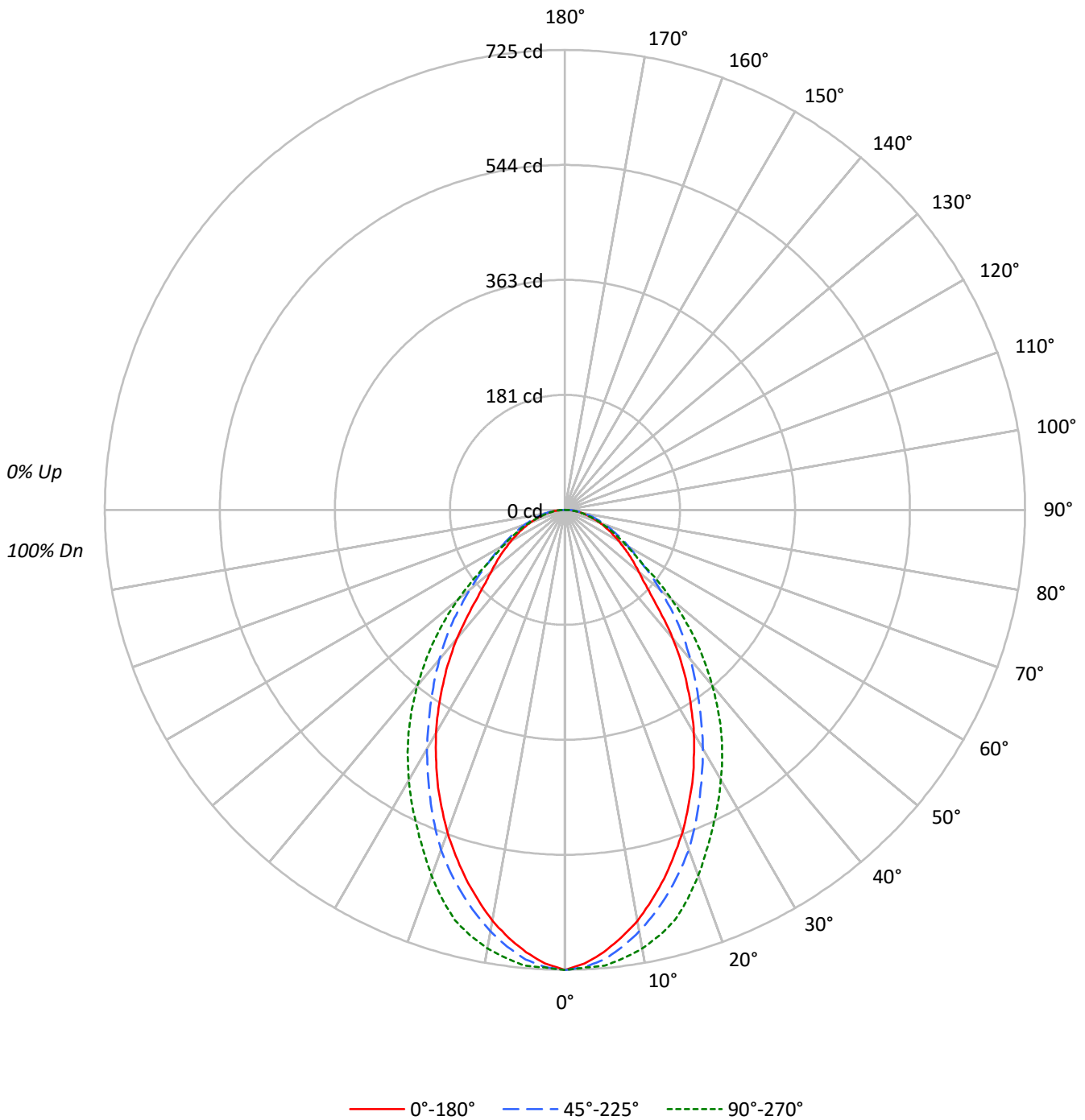
Lumens per Lamp: N/A
Luminaire Lumens: 1181.2 lumens
Efficiency: N/A
Efficacy: 50.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87			87	
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76			76	
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66			66	
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59			59	
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52			52	
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			47	
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43			43	
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39			39	
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36			36	
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33			33	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13385	13385	13385
5°	12968	13183	13359
10°	12329	12644	13157
15°	11504	11966	12792
20°	10625	11205	12053
25°	9667	10225	11233
30°	8659	9264	10477
35°	7542	8276	9675
40°	6366	7405	8698
45°	5055	6540	7610
50°	4352	5621	6316
55°	3963	4810	4842
60°	3613	4274	4119
65°	3310	3860	3633
70°	3070	3577	3237
75°	2852	3379	2852
80°	2688	3241	2572
85°	2668	3345	2223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7610 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	5.7
10°-20°	177.0	15.0
20°-30°	233.0	19.7
30°-40°	234.2	19.8
40°-50°	189.8	16.1
50°-60°	130.8	11.1
60°-70°	85.6	7.2
70°-80°	47.7	4.0
80°-90°	16.1	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°	476.9	40.4
0°-40°	711.2	60.2
0°-60°	1031.8	87.4
0°-90°	1181.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1181.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	700	714	712	715	721	65
15°	602	617	626	650	670	169
25°	475	487	502	524	552	218
35°	335	351	367	400	430	209
45°	194	216	251	273	292	153
55°	123	137	150	153	150	110
65°	76	90	88	84	83	76
75°	40	50	47	42	40	43
85°	13	17	16	14	10	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	725.4	725.4	725.4	725.4	725.4
2.5°	715.9	728.5	721.2	721.2	722.2
5°	700.1	713.8	711.7	714.8	721.2
7.5°	680.1	694.8	694.8	704.3	712.7
10°	658.0	672.7	674.8	689.6	702.2
12.5°	630.6	645.4	651.7	670.6	687.5
15°	602.2	616.9	626.4	649.6	669.6
17.5°	571.7	586.4	599.0	623.3	643.3
20°	541.1	554.8	570.6	591.7	613.8
22.5°	507.4	522.2	536.9	556.9	582.2
25°	474.8	487.4	502.2	524.3	551.7
27.5°	440.1	453.8	467.4	493.8	522.2
30°	406.4	420.1	434.8	462.2	491.7
32.5°	370.6	385.3	400.1	430.6	461.1
35°	334.8	350.6	367.4	400.1	429.5
37.5°	300.0	316.9	336.9	370.6	395.8
40°	264.3	282.1	307.4	336.9	361.1
42.5°	226.4	248.5	279.0	304.3	326.4
45°	193.7	215.8	250.6	272.7	291.6
47.5°	169.5	187.4	221.1	240.0	255.8
50°	151.6	165.3	195.8	209.5	220.0
52.5°	136.9	150.5	171.6	181.1	184.2
55°	123.2	136.9	149.5	152.7	150.5
57.5°	109.5	124.2	131.6	128.4	128.4
60°	97.9	113.7	115.8	111.6	111.6
62.5°	86.3	102.1	102.1	96.9	96.9
65°	75.8	90.5	88.4	84.2	83.2
67.5°	66.3	80.0	76.9	72.6	71.6
70°	56.9	69.5	66.3	61.1	60.0
72.5°	48.4	60.0	55.8	51.6	49.5
75°	40.0	49.5	47.4	42.1	40.0
77.5°	32.6	40.0	37.9	33.7	31.6
80°	25.3	31.6	30.5	26.3	24.2
82.5°	19.0	24.2	23.2	20.0	16.8
85°	12.6	16.8	15.8	13.7	10.5
87.5°	6.3	11.6	10.5	9.5	5.3
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	15.74	17.18	16.11	17.49	17.81	16.10	17.54	16.46	17.85	18.17
	3H	17.29	18.58	17.66	18.90	19.27	17.45	18.74	17.83	19.06	19.43
	4H	17.86	19.06	18.26	19.41	19.79	17.93	19.14	18.33	19.49	19.87
	6H	18.29	19.40	18.70	19.77	20.16	18.28	19.40	18.70	19.77	20.16
	8H	18.44	19.50	18.87	19.89	20.29	18.40	19.46	18.83	19.85	20.25
	12H	18.56	19.57	18.99	19.95	20.38	18.47	19.49	18.91	19.87	20.30
4H	2H	16.33	17.53	16.73	17.88	18.26	16.61	17.82	17.02	18.17	18.55
	3H	18.15	19.15	18.56	19.55	19.95	18.19	19.19	18.60	19.59	19.99
	4H	18.90	19.80	19.33	20.21	20.66	18.79	19.69	19.23	20.11	20.55
	6H	19.48	20.27	19.94	20.71	21.17	19.27	20.06	19.73	20.50	20.96
	8H	19.69	20.43	20.16	20.87	21.34	19.44	20.17	19.90	20.61	21.08
	12H	19.86	20.51	20.35	20.99	21.47	19.56	20.21	20.04	20.69	21.16
8H	4H	19.18	19.91	19.65	20.36	20.83	19.09	19.83	19.56	20.27	20.74
	6H	19.94	20.54	20.44	21.04	21.51	19.71	20.32	20.21	20.81	21.29
	8H	20.26	20.80	20.78	21.32	21.81	19.96	20.50	20.48	21.01	21.50
	12H	20.55	21.03	21.06	21.52	22.09	20.17	20.65	20.68	21.14	21.71
12H	4H	19.20	19.85	19.68	20.33	20.80	19.13	19.78	19.61	20.26	20.73
	6H	20.00	20.54	20.51	21.05	21.54	19.79	20.33	20.30	20.84	21.33
	8H	20.40	20.88	20.91	21.37	21.94	20.11	20.59	20.62	21.08	21.65