

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: P1058525

Luminaire Tested: S122RDR-H865D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058525
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-H865D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

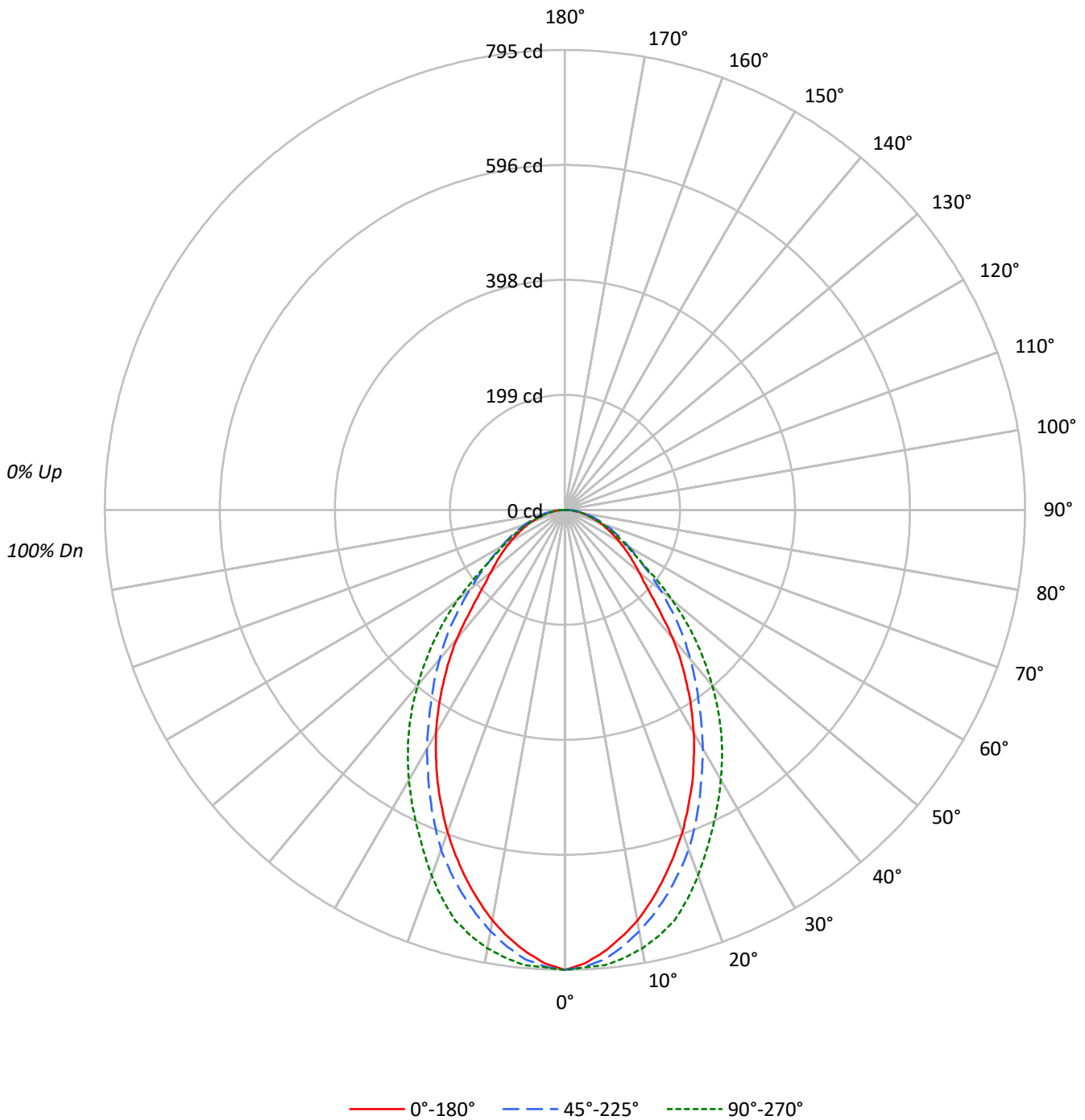
Lumens per Lamp: N/A
Luminaire Lumens: 1294.6 lumens
Efficiency: N/A
Efficacy: 41.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	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	45	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	39	35	45	39	35	45	39	34	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14672	14672	14672
5°	14215	14450	14641
10°	13513	13860	14422
15°	12608	13116	14020
20°	11647	12281	13210
25°	10595	11206	12312
30°	9490	10155	11482
35°	8265	9071	10605
40°	6976	8115	9534
45°	5540	7166	8340
50°	4771	6161	6924
55°	4343	5273	5308
60°	3960	4683	4513
65°	3628	4231	3982
70°	3361	3922	3550
75°	3123	3700	3123
80°	2943	3560	2816
85°	2922	3663	2435

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8340 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	5.7
10°-20°	194.0	15.0
20°-30°	255.3	19.7
30°-40°	256.8	19.8
40°-50°	208.1	16.1
50°-60°	143.3	11.1
60°-70°	93.8	7.2
70°-80°	52.3	4.0
80°-90°	17.7	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°	522.7	40.4
0°-40°	779.5	60.2
0°-60°	1130.9	87.4
0°-90°	1294.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1294.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	767	782	780	784	790	72
15°	660	676	687	712	734	185
25°	520	534	550	575	605	238
35°	367	384	403	438	471	229
45°	212	237	275	299	320	168
55°	135	150	164	167	165	121
65°	83	99	97	92	91	83
75°	44	54	52	46	44	47
85°	14	18	17	15	12	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	795.1	795.1	795.1	795.1	795.1
2.5°	784.7	798.5	790.4	790.4	791.6
5°	767.4	782.4	780.1	783.5	790.4
7.5°	745.4	761.6	761.6	772.0	781.2
10°	721.2	737.4	739.7	755.8	769.7
12.5°	691.2	707.4	714.3	735.1	753.5
15°	660.0	676.2	686.6	712.0	733.9
17.5°	626.6	642.7	656.6	683.1	705.0
20°	593.1	608.1	625.4	648.5	672.7
22.5°	556.2	572.3	588.5	610.4	638.1
25°	520.4	534.3	550.4	574.7	604.7
27.5°	482.3	497.3	512.3	541.2	572.3
30°	445.4	460.4	476.6	506.6	538.9
32.5°	406.2	422.3	438.5	472.0	505.4
35°	366.9	384.3	402.7	438.5	470.8
37.5°	328.9	347.3	369.3	406.2	433.9
40°	289.6	309.3	336.9	369.3	395.8
42.5°	248.1	272.3	305.8	333.5	357.7
45°	212.3	236.6	274.6	298.9	319.6
47.5°	185.8	205.4	242.3	263.1	280.4
50°	166.2	181.2	214.6	229.6	241.2
52.5°	150.0	165.0	188.1	198.5	201.9
55°	135.0	150.0	163.9	167.3	165.0
57.5°	120.0	136.2	144.2	140.8	140.8
60°	107.3	124.6	126.9	122.3	122.3
62.5°	94.6	111.9	111.9	106.2	106.2
65°	83.1	99.2	96.9	92.3	91.2
67.5°	72.7	87.7	84.2	79.6	78.5
70°	62.3	76.2	72.7	66.9	65.8
72.5°	53.1	65.8	61.2	56.5	54.2
75°	43.8	54.2	51.9	46.2	43.8
77.5°	35.8	43.8	41.5	36.9	34.6
80°	27.7	34.6	33.5	28.8	26.5
82.5°	20.8	26.5	25.4	21.9	18.5
85°	13.8	18.5	17.3	15.0	11.5
87.5°	6.9	12.7	11.5	10.4	5.8
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	16.06	17.50	16.43	17.82	18.13	16.42	17.86	16.79	18.18	18.49
	3H	17.61	18.90	17.99	19.22	19.59	17.77	19.06	18.15	19.39	19.75
	4H	18.18	19.38	18.58	19.73	20.11	18.25	19.46	18.65	19.81	20.19
	6H	18.61	19.72	19.02	20.09	20.48	18.60	19.72	19.02	20.09	20.48
	8H	18.76	19.82	19.19	20.21	20.61	18.72	19.78	19.15	20.17	20.57
	12H	18.88	19.89	19.31	20.27	20.70	18.79	19.81	19.23	20.19	20.62
4H	2H	16.65	17.86	17.05	18.21	18.59	16.94	18.14	17.34	18.49	18.87
	3H	18.47	19.47	18.88	19.87	20.27	18.51	19.51	18.92	19.91	20.31
	4H	19.22	20.12	19.65	20.53	20.97	19.11	20.01	19.55	20.43	20.87
	6H	19.80	20.59	20.26	21.03	21.49	19.59	20.38	20.05	20.82	21.28
	8H	20.01	20.74	20.48	21.19	21.66	19.76	20.49	20.22	20.93	21.40
	12H	20.18	20.83	20.66	21.31	21.78	19.88	20.53	20.36	21.01	21.48
8H	4H	19.50	20.23	19.96	20.68	21.15	19.41	20.14	19.88	20.59	21.06
	6H	20.26	20.86	20.76	21.35	21.83	20.03	20.63	20.53	21.13	21.61
	8H	20.58	21.12	21.10	21.63	22.12	20.28	20.82	20.80	21.33	21.82
	12H	20.87	21.34	21.38	21.84	22.40	20.49	20.97	21.00	21.46	22.03
12H	4H	19.52	20.17	20.00	20.65	21.12	19.45	20.10	19.93	20.58	21.05
	6H	20.32	20.86	20.83	21.37	21.86	20.11	20.65	20.62	21.16	21.65
	8H	20.71	21.19	21.23	21.69	22.25	20.43	20.91	20.94	21.40	21.97