

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: P1058363

Luminaire Tested: S122RDR-H485D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058363
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-H485D830-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

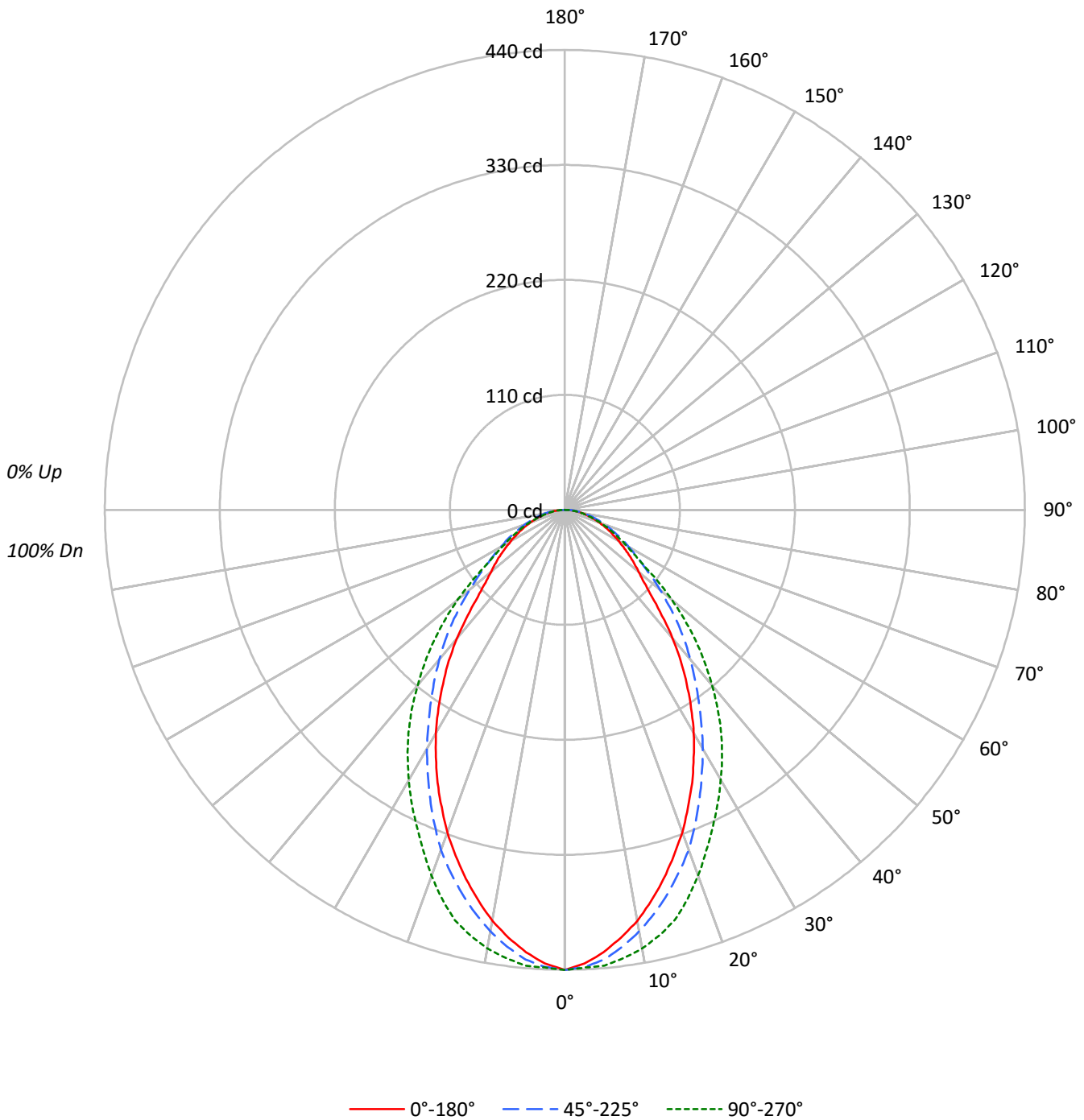
Lumens per Lamp: N/A
Luminaire Lumens: 716.8 lumens
Efficiency: N/A
Efficacy: 41.2 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	86	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°	8123	8123	8123
5°	7870	8000	8106
10°	7482	7673	7984
15°	6980	7261	7762
20°	6449	6800	7315
25°	5866	6206	6817
30°	5254	5623	6358
35°	4577	5023	5873
40°	3864	4495	5278
45°	3069	3969	4619
50°	2641	3410	3832
55°	2406	2918	2940
60°	2192	2594	2498
65°	2008	2345	2205
70°	1861	2174	1964
75°	1732	2053	1732
80°	1626	1966	1562
85°	1630	2032	1355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4619 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	5.7
10°-20°	107.4	15.0
20°-30°	141.4	19.7
30°-40°	142.2	19.8
40°-50°	115.2	16.1
50°-60°	79.4	11.1
60°-70°	51.9	7.2
70°-80°	28.9	4.0
80°-90°	9.8	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°	289.4	40.4
0°-40°	431.6	60.2
0°-60°	626.1	87.3
0°-90°	716.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	716.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	425	433	432	434	438	40
15°	365	374	380	394	406	102
25°	288	296	305	318	335	132
35°	203	213	223	243	261	127
45°	118	131	152	166	177	93
55°	75	83	91	93	91	67
65°	46	55	54	51	50	46
75°	24	30	29	26	24	26
85°	8	10	10	8	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	440.2	440.2	440.2	440.2	440.2
2.5°	434.5	442.1	437.6	437.6	438.3
5°	424.9	433.2	431.9	433.8	437.6
7.5°	412.7	421.7	421.7	427.4	432.5
10°	399.3	408.3	409.5	418.5	426.1
12.5°	382.7	391.6	395.5	407.0	417.2
15°	365.4	374.4	380.1	394.2	406.3
17.5°	346.9	355.9	363.5	378.2	390.4
20°	328.4	336.7	346.3	359.1	372.5
22.5°	307.9	316.9	325.8	338.0	353.3
25°	288.1	295.8	304.8	318.2	334.8
27.5°	267.1	275.4	283.7	299.6	316.9
30°	246.6	254.9	263.9	280.5	298.4
32.5°	224.9	233.8	242.8	261.3	279.8
35°	203.2	212.8	223.0	242.8	260.7
37.5°	182.1	192.3	204.4	224.9	240.2
40°	160.4	171.2	186.6	204.4	219.1
42.5°	137.4	150.8	169.3	184.6	198.1
45°	117.6	131.0	152.1	165.5	177.0
47.5°	102.9	113.7	134.2	145.7	155.3
50°	92.0	100.3	118.8	127.1	133.5
52.5°	83.1	91.4	104.1	109.9	111.8
55°	74.8	83.1	90.7	92.6	91.4
57.5°	66.4	75.4	79.9	77.9	77.9
60°	59.4	69.0	70.3	67.7	67.7
62.5°	52.4	62.0	62.0	58.8	58.8
65°	46.0	54.9	53.7	51.1	50.5
67.5°	40.3	48.6	46.6	44.1	43.4
70°	34.5	42.2	40.3	37.1	36.4
72.5°	29.4	36.4	33.9	31.3	30.0
75°	24.3	30.0	28.8	25.6	24.3
77.5°	19.8	24.3	23.0	20.4	19.2
80°	15.3	19.2	18.5	16.0	14.7
82.5°	11.5	14.7	14.1	12.1	10.2
85°	7.7	10.2	9.6	8.3	6.4
87.5°	3.8	7.0	6.4	5.8	3.2
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	14.01	15.45	14.37	15.76	16.08	14.36	15.80	14.73	16.12	16.43
	3H	15.55	16.84	15.93	17.17	17.53	15.71	17.00	16.09	17.33	17.69
	4H	16.12	17.33	16.52	17.68	18.06	16.19	17.40	16.59	17.75	18.13
	6H	16.55	17.67	16.97	18.04	18.43	16.55	17.66	16.96	18.03	18.42
	8H	16.71	17.77	17.14	18.16	18.56	16.66	17.72	17.09	18.11	18.52
	12H	16.82	17.84	17.25	18.22	18.65	16.74	17.75	17.17	18.14	18.57
4H	2H	14.59	15.80	14.99	16.15	16.53	14.88	16.09	15.28	16.44	16.82
	3H	16.42	17.42	16.83	17.82	18.22	16.45	17.45	16.86	17.86	18.26
	4H	17.16	18.06	17.60	18.48	18.92	17.06	17.96	17.49	18.38	18.82
	6H	17.75	18.53	18.21	18.98	19.44	17.54	18.32	18.00	18.77	19.23
	8H	17.96	18.69	18.43	19.14	19.61	17.70	18.44	18.17	18.88	19.35
	12H	18.13	18.78	18.61	19.26	19.73	17.83	18.48	18.31	18.96	19.43
8H	4H	17.45	18.18	17.91	18.62	19.09	17.36	18.09	17.82	18.54	19.01
	6H	18.21	18.81	18.70	19.30	19.78	17.98	18.58	18.48	19.07	19.55
	8H	18.53	19.07	19.05	19.58	20.07	18.23	18.77	18.74	19.28	19.77
	12H	18.81	19.29	19.33	19.79	20.35	18.44	18.92	18.95	19.41	19.98
12H	4H	17.47	18.12	17.95	18.60	19.07	17.39	18.05	17.88	18.53	19.00
	6H	18.26	18.81	18.78	19.32	19.81	18.05	18.60	18.57	19.11	19.60
	8H	18.66	19.14	19.17	19.64	20.20	18.37	18.85	18.88	19.35	19.91