

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: P1057966

Luminaire Tested: S122RDRP-S485D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057966
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D835-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

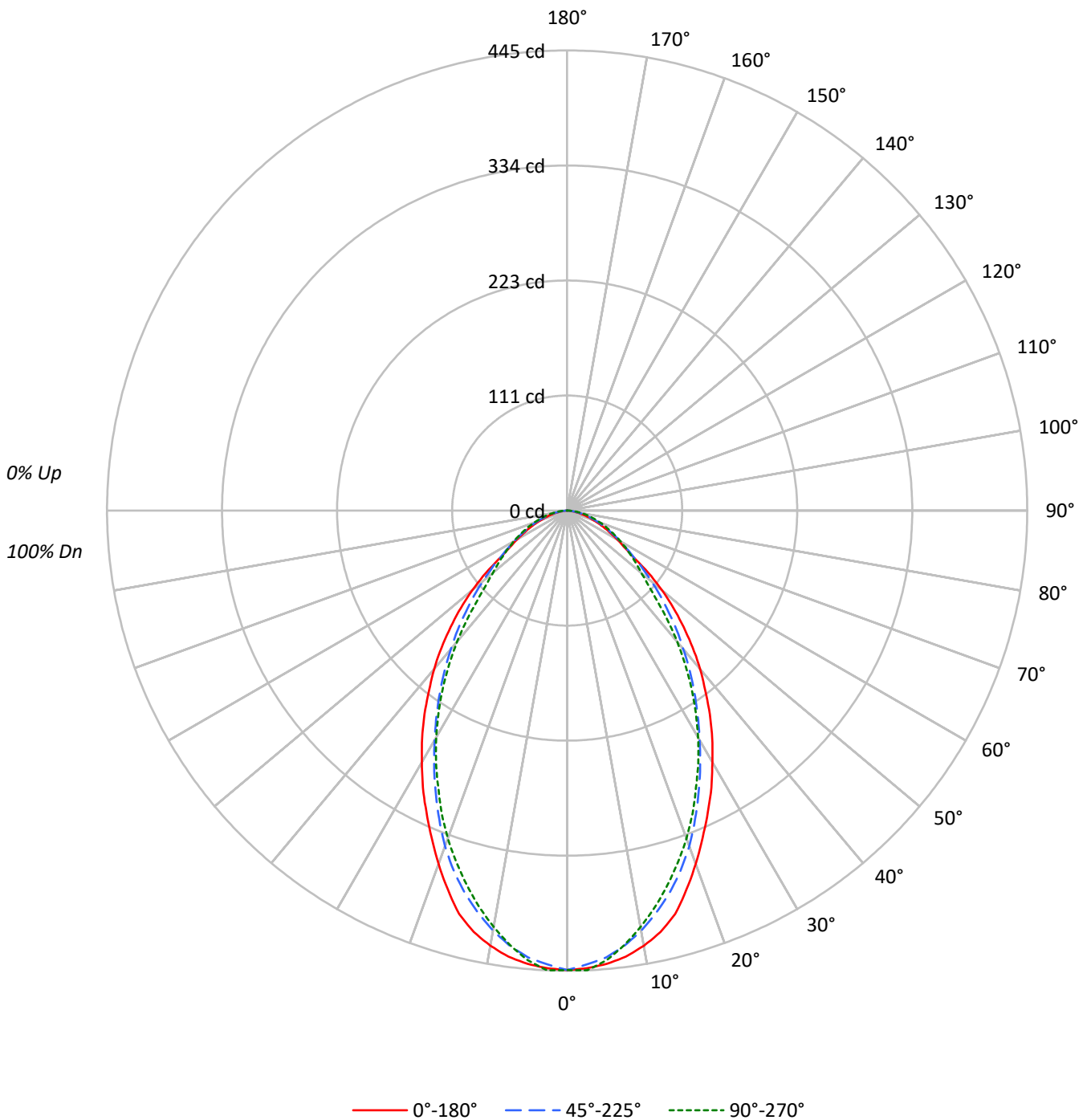
Lumens per Lamp: N/A
Luminaire Lumens: 674.7 lumens
Efficiency: N/A
Efficacy: 34.4 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8198	8198	8198
5°	8150	8033	8085
10°	8006	7727	7662
15°	7716	7311	7162
20°	7140	6779	6625
25°	6554	6122	6006
30°	5983	5457	5397
35°	5418	4830	4717
40°	4822	4208	3987
45°	4154	3619	3194
50°	3433	3046	2681
55°	2480	2525	2413
60°	2063	2166	2192
65°	1760	1886	2008
70°	1451	1678	1834
75°	1212	1412	1661
80°	903	1126	1498
85°	296	593	1355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4154 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.1	6.1
10°-20°	108.1	16.0
20°-30°	140.0	20.7
30°-40°	137.3	20.3
40°-50°	108.1	16.0
50°-60°	70.8	10.5
60°-70°	43.1	6.4
70°-80°	21.6	3.2
80°-90°	4.6	0.7
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°	289.2	42.9
0°-40°	426.4	63.2
0°-60°	605.4	89.7
0°-90°	674.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	674.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	440	440	434	436	436	42
15°	404	398	383	378	375	113
25°	322	311	301	299	295	148
35°	240	227	214	214	209	150
45°	159	149	139	129	122	123
55°	77	81	78	76	75	73
65°	40	41	43	45	46	40
75°	17	18	20	23	23	18
85°	1	2	3	5	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	444.3	444.3	444.3	444.3	444.3
2.5°	442.9	443.6	439.3	443.6	445.0
5°	440.0	440.0	433.7	436.5	436.5
7.5°	435.1	434.4	424.5	424.5	423.8
10°	427.3	424.5	412.4	410.3	408.9
12.5°	417.4	412.4	398.3	394.7	392.6
15°	403.9	398.3	382.7	377.8	374.9
17.5°	384.1	378.5	365.0	359.4	356.5
20°	363.6	355.1	345.2	340.3	337.4
22.5°	342.4	332.5	323.3	319.8	316.9
25°	321.9	311.3	300.7	299.2	295.0
27.5°	302.1	289.3	278.7	278.0	274.5
30°	280.8	267.4	256.1	256.8	253.3
32.5°	261.0	248.3	234.9	235.6	231.3
35°	240.5	227.1	214.4	213.6	209.4
37.5°	219.3	206.6	194.5	191.7	187.5
40°	200.2	187.5	174.7	169.8	165.5
42.5°	179.7	168.4	157.0	149.3	143.6
45°	159.2	149.3	138.7	128.8	122.4
47.5°	139.4	131.6	122.4	110.4	106.1
50°	119.6	113.9	106.1	95.5	93.4
52.5°	99.0	96.9	92.0	84.9	84.2
55°	77.1	81.4	78.5	75.7	75.0
57.5°	65.1	65.8	67.9	67.2	67.2
60°	55.9	55.9	58.7	59.4	59.4
62.5°	47.4	48.1	50.9	52.3	52.3
65°	40.3	41.0	43.2	45.3	46.0
67.5°	33.2	34.7	36.8	38.9	39.6
70°	26.9	28.3	31.1	33.2	34.0
72.5°	21.9	22.6	25.5	27.6	28.3
75°	17.0	17.7	19.8	22.6	23.3
77.5°	12.0	13.4	15.6	17.7	19.1
80°	8.5	9.2	10.6	13.4	14.1
82.5°	5.0	5.7	7.1	9.2	9.9
85°	1.4	2.1	2.8	5.0	6.4
87.5°	0.0	0.0	0.0	1.4	2.8
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	13.43	14.83	13.80	15.14	15.46	13.61	15.01	13.98	15.32	15.63
	3H	14.57	15.81	14.94	16.14	16.50	15.07	16.31	15.45	16.64	17.01
	4H	14.92	16.08	15.32	16.43	16.81	15.61	16.77	16.01	17.12	17.51
	6H	15.10	16.17	15.51	16.54	16.93	16.02	17.09	16.44	17.46	17.86
	8H	15.13	16.15	15.56	16.54	16.94	16.15	17.17	16.58	17.56	17.96
	12H	15.11	16.09	15.55	16.47	16.90	16.23	17.21	16.67	17.59	18.02
4H	2H	13.89	15.06	14.29	15.41	15.79	14.04	15.20	14.44	15.55	15.93
	3H	15.23	16.19	15.64	16.59	16.99	15.71	16.67	16.12	17.07	17.47
	4H	15.67	16.53	16.11	16.95	17.39	16.37	17.23	16.81	17.65	18.09
	6H	15.95	16.69	16.41	17.13	17.60	16.91	17.65	17.37	18.09	18.56
	8H	15.99	16.68	16.46	17.13	17.60	17.07	17.77	17.54	18.21	18.68
	12H	15.99	16.60	16.47	17.08	17.56	17.20	17.81	17.68	18.29	18.77
8H	4H	15.89	16.58	16.36	17.03	17.50	16.52	17.22	16.99	17.66	18.13
	6H	16.23	16.80	16.73	17.30	17.78	17.15	17.72	17.65	18.22	18.70
	8H	16.31	16.82	16.83	17.34	17.83	17.39	17.90	17.91	18.41	18.90
	12H	16.33	16.78	16.84	17.27	17.84	17.57	18.02	18.09	18.52	19.09
12H	4H	15.90	16.52	16.38	17.00	17.47	16.51	17.12	16.99	17.61	18.08
	6H	16.26	16.77	16.78	17.28	17.77	17.15	17.66	17.67	18.17	18.66
	8H	16.38	16.83	16.89	17.32	17.89	17.42	17.87	17.94	18.37	18.94