

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: P1060485

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060485
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S575D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

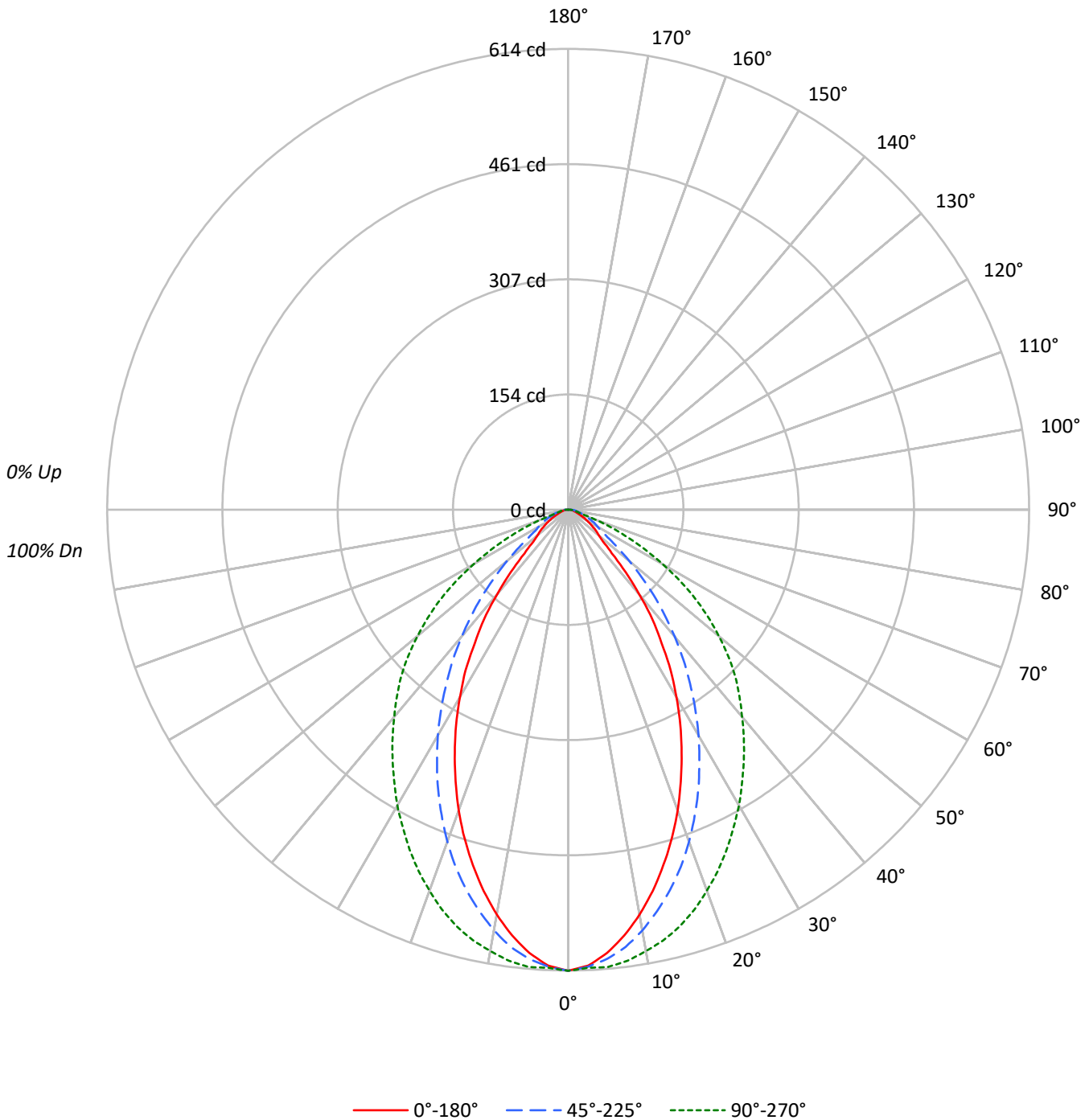
Lumens per Lamp: N/A
Luminaire Lumens: 869.4 lumens
Efficiency: N/A
Efficacy: 44.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5290	5290	5290
5°	5126	5192	5286
10°	4789	4975	5221
15°	4369	4675	5122
20°	3906	4314	4950
25°	3398	3899	4748
30°	2867	3453	4525
35°	2280	2973	4286
40°	1659	2476	4050
45°	1003	1956	3836
50°	717	1416	3513
55°	608	958	3102
60°	496	780	2506
65°	391	699	1803
70°	327	587	949
75°	296	549	479
80°	307	545	476
85°	405	810	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3836 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.6	6.5
10°-20°	148.2	17.0
20°-30°	192.2	22.1
30°-40°	185.0	21.3
40°-50°	137.6	15.8
50°-60°	84.7	9.7
60°-70°	41.6	4.8
70°-80°	16.2	1.9
80°-90°	7.4	0.8
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°	396.9	45.7
0°-40°	582.0	66.9
0°-60°	804.3	92.5
0°-90°	869.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	869.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	593	602	601	606	612	55
15°	490	506	524	556	574	137
25°	358	377	410	462	500	164
35°	217	238	283	354	408	136
45°	82	102	161	248	315	68
55°	40	42	64	146	207	36
65°	19	21	34	55	88	20
75°	9	16	16	15	14	10
85°	4	8	8	8	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	614.3	614.3	614.3	614.3	614.3
2.5°	608.1	615.0	609.5	610.2	610.9
5°	593.0	601.9	600.6	606.1	611.5
7.5°	572.4	582.7	587.5	598.5	606.1
10°	547.7	559.4	569.0	586.8	597.1
12.5°	520.3	534.0	547.7	571.7	587.5
15°	490.1	505.8	524.4	556.0	574.5
17.5°	459.2	475.0	499.0	535.4	558.7
20°	426.2	443.4	470.8	511.3	540.2
22.5°	391.9	410.4	440.6	486.6	520.9
25°	357.6	376.8	410.4	461.9	499.7
27.5°	323.3	341.8	378.2	435.8	477.0
30°	288.3	307.5	347.3	407.7	455.1
32.5°	254.6	272.5	315.0	380.9	431.0
35°	216.9	237.5	282.8	353.5	407.7
37.5°	184.6	203.2	251.9	326.0	384.4
40°	147.6	168.2	220.3	299.3	360.3
42.5°	113.2	133.8	190.1	272.5	337.7
45°	82.4	102.3	160.6	247.8	315.0
47.5°	62.5	74.1	131.8	223.8	289.6
50°	53.5	57.0	105.7	197.7	262.2
52.5°	47.4	48.7	82.4	171.6	234.7
55°	40.5	41.9	63.8	145.5	206.6
57.5°	34.3	35.0	51.5	120.8	176.4
60°	28.8	29.5	45.3	96.8	145.5
62.5°	24.0	24.7	40.5	74.8	116.0
65°	19.2	20.6	34.3	54.9	88.5
67.5°	15.8	18.5	28.8	38.4	61.8
70°	13.0	17.8	23.3	26.8	37.7
72.5°	11.0	16.5	19.9	19.2	18.5
75°	8.9	15.8	16.5	15.1	14.4
77.5°	7.5	13.7	13.7	12.4	11.7
80°	6.2	11.0	11.0	11.0	9.6
82.5°	5.5	8.9	9.6	9.6	7.5
85°	4.1	7.5	8.2	8.2	5.5
87.5°	2.7	6.9	7.5	6.9	4.1
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	5.57	6.91	5.94	7.23	7.54	14.74	16.08	15.11	16.40	16.71
	3H	6.68	7.87	7.06	8.20	8.56	15.25	16.44	15.63	16.77	17.13
	4H	7.20	8.31	7.60	8.66	9.04	15.27	16.38	15.67	16.73	17.11
	6H	7.63	8.65	8.04	9.02	9.41	15.28	16.30	15.69	16.67	17.06
	8H	7.82	8.79	8.25	9.18	9.58	15.28	16.25	15.71	16.64	17.04
	12H	8.00	8.93	8.43	9.31	9.74	15.28	16.21	15.72	16.59	17.02
4H	2H	6.72	7.83	7.12	8.18	8.56	14.63	15.74	15.03	16.09	16.48
	3H	8.05	8.96	8.47	9.37	9.77	15.22	16.13	15.63	16.53	16.94
	4H	8.79	9.60	9.22	10.02	10.46	15.28	16.09	15.71	16.51	16.95
	6H	9.40	10.10	9.86	10.55	11.01	15.36	16.06	15.82	16.50	16.97
	8H	9.64	10.30	10.11	10.74	11.21	15.39	16.04	15.85	16.49	16.96
	12H	9.88	10.46	10.36	10.94	11.41	15.43	16.01	15.91	16.49	16.96
8H	4H	9.26	9.91	9.73	10.36	10.83	15.24	15.89	15.71	16.34	16.81
	6H	10.11	10.64	10.61	11.14	11.62	15.37	15.90	15.87	16.40	16.88
	8H	10.51	11.00	11.03	11.51	12.00	15.45	15.93	15.97	16.45	16.94
	12H	10.93	11.36	11.45	11.85	12.42	15.57	16.00	16.08	16.49	17.06
12H	4H	9.31	9.89	9.80	10.37	10.85	15.21	15.79	15.70	16.27	16.75
	6H	10.24	10.72	10.76	11.24	11.73	15.35	15.83	15.87	16.35	16.84
	8H	10.76	11.19	11.27	11.68	12.25	15.48	15.91	15.99	16.40	16.97