

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: P1060235

Luminaire Tested: S124RDRP-S1020D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060235
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

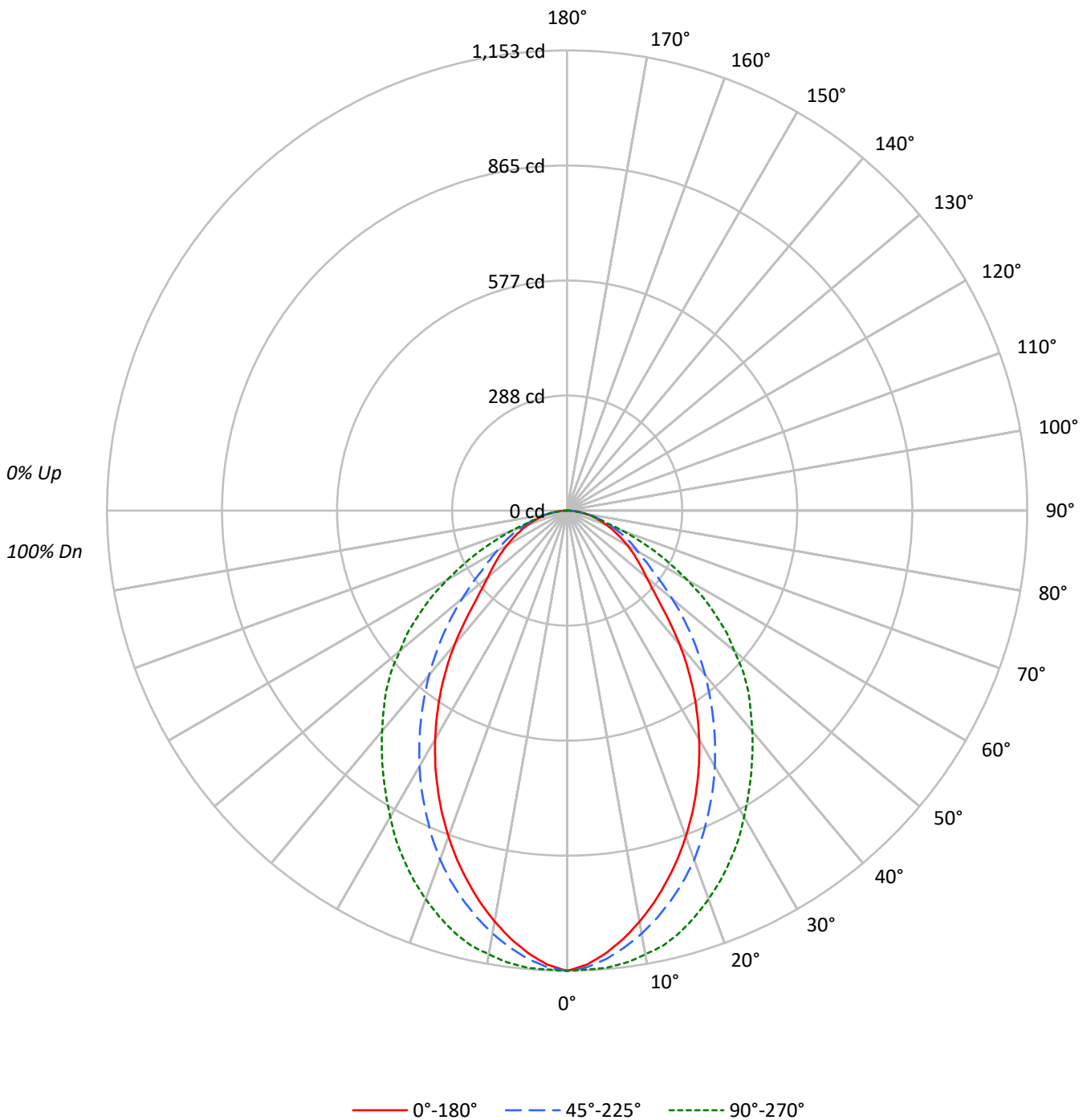
Lumens per Lamp: N/A
Luminaire Lumens: 2099.6 lumens
Efficiency: N/A
Efficacy: 60.0 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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	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	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52					50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42					41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9930	9930	9930
5°	9623	9749	9937
10°	9143	9408	9873
15°	8578	8999	9753
20°	7965	8530	9494
25°	7293	7948	9189
30°	6574	7356	8811
35°	5794	6710	8451
40°	4933	6047	8113
45°	4004	5344	7817
50°	3466	4599	7320
55°	3213	3902	6787
60°	2998	3519	5954
65°	2808	3301	4951
70°	2618	3044	3744
75°	2492	2815	2695
80°	2336	2579	2276
85°	2154	2391	1788

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7817 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.5	5.1
10°-20°	286.2	13.6
20°-30°	390.8	18.6
30°-40°	409.4	19.5
40°-50°	354.4	16.9
50°-60°	266.3	12.7
60°-70°	171.7	8.2
70°-80°	88.0	4.2
80°-90°	26.3	1.3
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°	783.4	37.3
0°-40°	1192.9	56.8
0°-60°	1813.5	86.4
0°-90°	2099.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2099.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1153	1153	1153	1153	1153	
5°	1113	1130	1128	1136	1150	104
15°	962	986	1009	1055	1094	270
25°	768	797	836	902	967	352
35°	551	583	638	723	804	343
45°	329	363	439	546	642	259
55°	214	221	260	371	452	192
65°	138	140	162	196	243	137
75°	75	83	85	83	81	79
85°	22	25	24	23	18	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1153.2	1153.2	1153.2	1153.2	1153.2
2.5°	1138.7	1153.2	1144.8	1147.2	1150.8
5°	1113.3	1130.3	1127.8	1136.3	1149.6
7.5°	1081.9	1100.0	1103.7	1123.0	1142.3
10°	1045.6	1066.2	1075.9	1104.9	1129.1
12.5°	1005.8	1027.5	1044.4	1080.7	1115.8
15°	962.2	986.4	1009.4	1055.3	1094.0
17.5°	917.5	941.7	971.9	1022.7	1066.2
20°	869.2	895.7	930.8	984.0	1036.0
22.5°	819.6	847.4	884.9	942.9	1003.3
25°	767.6	796.6	836.5	901.8	967.1
27.5°	715.6	744.6	789.4	858.3	929.6
30°	661.2	691.5	739.8	814.8	886.1
32.5°	606.8	639.5	689.0	768.8	845.0
35°	551.2	582.7	638.3	722.9	803.9
37.5°	495.6	528.3	587.5	678.2	762.8
40°	438.8	472.7	537.9	633.4	721.7
42.5°	382.0	418.3	487.2	587.5	680.6
45°	328.8	362.7	438.8	546.4	641.9
47.5°	288.9	311.9	390.5	506.5	598.4
50°	258.7	270.8	343.3	463.0	546.4
52.5°	235.7	244.2	299.8	415.8	504.1
55°	214.0	221.2	259.9	371.1	452.1
57.5°	194.6	198.2	229.7	327.6	402.5
60°	174.1	177.7	204.3	280.4	345.7
62.5°	155.9	158.4	183.7	235.7	293.7
65°	137.8	140.2	162.0	195.8	243.0
67.5°	120.9	124.5	141.4	159.6	193.4
70°	104.0	111.2	120.9	129.3	148.7
72.5°	89.5	96.7	101.5	104.0	105.2
75°	74.9	83.4	84.6	83.4	81.0
77.5°	60.4	67.7	67.7	65.3	62.9
80°	47.1	53.2	52.0	49.6	45.9
82.5°	35.1	38.7	37.5	35.1	31.4
85°	21.8	25.4	24.2	23.0	18.1
87.5°	10.9	14.5	13.3	12.1	7.3
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	14.41	15.89	14.77	16.20	16.52	18.18	19.67	18.55	19.98	20.29
	3H	16.06	17.39	16.44	17.72	18.08	19.30	20.62	19.67	20.95	21.31
	4H	16.73	17.98	17.13	18.33	18.71	19.59	20.83	19.99	21.18	21.56
	6H	17.24	18.39	17.66	18.76	19.15	19.78	20.93	20.20	21.30	21.69
	8H	17.43	18.52	17.85	18.91	19.31	19.84	20.93	20.26	21.32	21.72
	12H	17.55	18.60	17.98	18.98	19.41	19.86	20.91	20.29	21.29	21.72
4H	2H	15.19	16.44	15.59	16.78	17.16	18.34	19.59	18.74	19.93	20.31
	3H	17.05	18.08	17.46	18.49	18.89	19.65	20.68	20.06	21.09	21.49
	4H	17.86	18.79	18.29	19.21	19.65	20.06	20.99	20.49	21.41	21.84
	6H	18.51	19.31	18.97	19.76	20.22	20.38	21.18	20.83	21.63	22.09
	8H	18.74	19.49	19.20	19.94	20.40	20.47	21.22	20.93	21.67	22.14
	12H	18.91	19.58	19.39	20.06	20.53	20.53	21.20	21.01	21.68	22.15
8H	4H	18.21	18.96	18.67	19.41	19.88	20.19	20.95	20.66	21.39	21.86
	6H	19.00	19.63	19.50	20.12	20.60	20.61	21.23	21.10	21.72	22.20
	8H	19.32	19.88	19.84	20.39	20.88	20.76	21.32	21.27	21.83	22.32
	12H	19.59	20.08	20.10	20.58	21.14	20.88	21.37	21.39	21.87	22.43
12H	4H	18.24	18.91	18.72	19.39	19.86	20.20	20.87	20.68	21.35	21.82
	6H	19.06	19.62	19.58	20.14	20.62	20.63	21.19	21.14	21.70	22.19
	8H	19.45	19.95	19.96	20.44	21.00	20.83	21.32	21.34	21.82	22.38