

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: P1060236

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
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-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

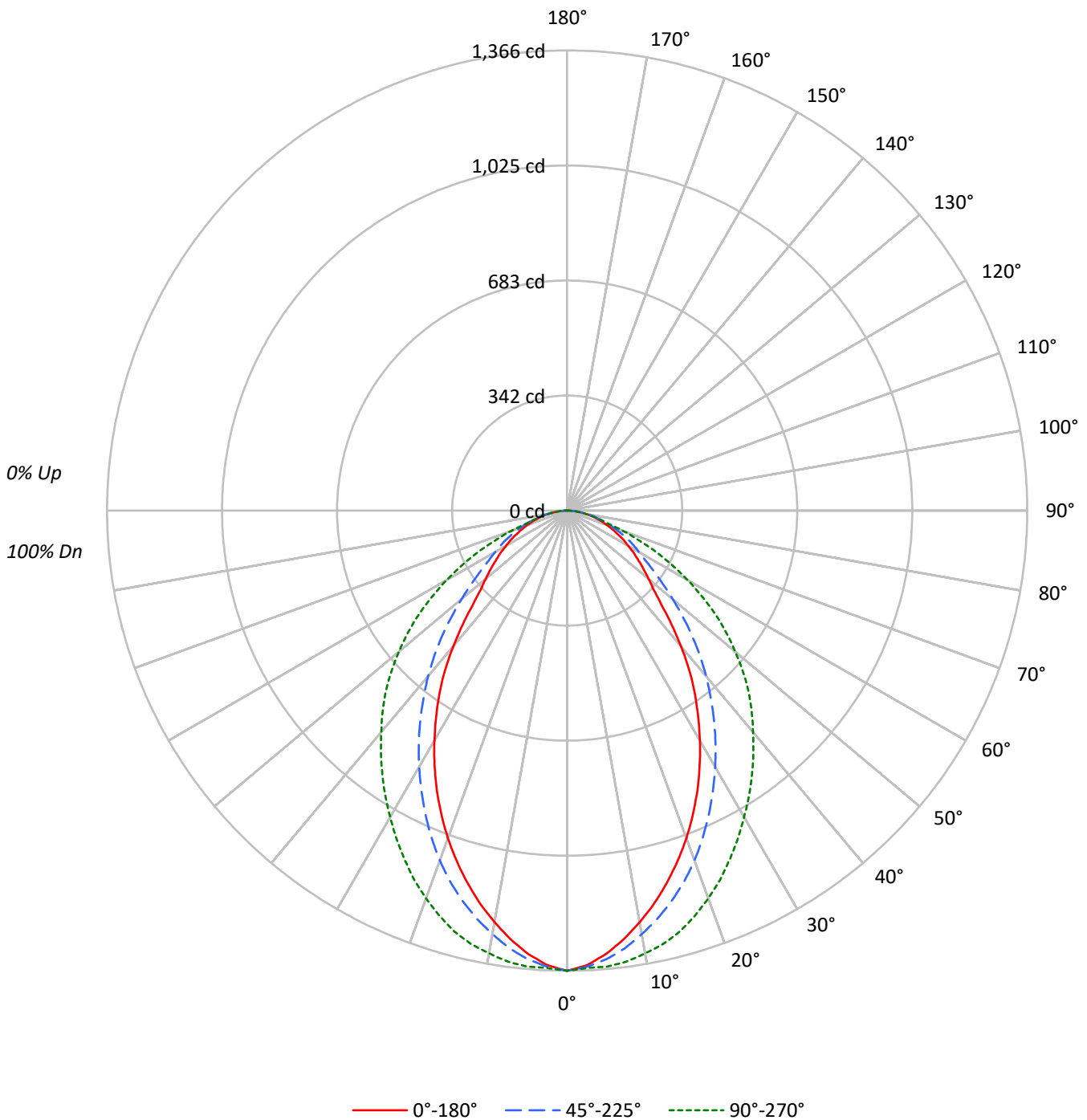
Lumens per Lamp: N/A
Luminaire Lumens: 2506.8 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1060236

CATALOG NUMBER: S124RDRP-S1020D835-X4F0-XX-UDD-WVL-W

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	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	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																												
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65																												
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57																												
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50																												
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																												
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																												
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11765	11765	11765
5°	11422	11558	11746
10°	10846	11163	11671
15°	10196	10692	11532
20°	9484	10126	11223
25°	8696	9454	10855
30°	7838	8739	10446
35°	6939	7995	10053
40°	5898	7217	9649
45°	4829	6375	9276
50°	4227	5474	8729
55°	3884	4719	8077
60°	3603	4247	7121
65°	3374	3992	5962
70°	3165	3653	4474
75°	2978	3337	3257
80°	2757	3060	2757
85°	2510	2984	2391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9276 cd/sqm

TEST NUMBER: P1060236

CATALOG NUMBER: S124RDRP-S1020D835-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	5.0
10°-20°	339.7	13.6
20°-30°	464.3	18.5
30°-40°	488.0	19.5
40°-50°	423.5	16.9
50°-60°	319.4	12.7
60°-70°	207.1	8.3
70°-80°	106.3	4.2
80°-90°	32.2	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°	930.3	37.1
0°-40°	1418.3	56.6
0°-60°	2161.2	86.2
0°-90°	2506.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2506.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1321	1340	1337	1348	1359	124
15°	1144	1172	1199	1254	1294	321
25°	915	948	995	1071	1142	420
35°	660	696	760	862	956	411
45°	396	434	524	654	762	312
55°	259	266	314	446	538	233
65°	166	169	196	237	293	165
75°	90	100	100	102	98	95
85°	25	31	30	29	24	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1366.2	1366.2	1366.2	1366.2	1366.2
2.5°	1350.4	1367.4	1355.3	1357.7	1358.9
5°	1321.4	1339.6	1337.1	1348.0	1358.9
7.5°	1283.9	1305.7	1310.5	1332.3	1350.4
10°	1240.4	1264.6	1276.7	1311.7	1334.7
12.5°	1194.5	1218.7	1240.4	1285.2	1317.8
15°	1143.7	1171.5	1199.3	1253.7	1293.6
17.5°	1090.5	1119.5	1154.6	1213.8	1261.0
20°	1034.9	1063.9	1105.0	1169.1	1224.7
22.5°	975.7	1008.3	1051.8	1120.7	1186.0
25°	915.2	947.8	995.0	1071.2	1142.5
27.5°	852.3	886.2	937.0	1021.6	1097.8
30°	788.3	824.5	878.9	968.4	1050.6
32.5°	723.0	761.7	819.7	915.2	1004.7
35°	660.1	696.4	760.5	862.0	956.3
37.5°	594.8	631.1	700.0	810.0	907.9
40°	524.7	564.6	642.0	755.6	858.4
42.5°	459.4	499.3	582.7	703.6	811.2
45°	396.5	434.0	523.5	654.1	761.7
47.5°	348.2	374.8	464.3	605.7	708.5
50°	315.5	327.6	408.6	552.5	651.6
52.5°	286.5	296.2	357.9	499.3	596.0
55°	258.7	266.0	314.3	446.1	538.0
57.5°	234.5	238.2	275.6	392.9	475.1
60°	209.2	214.0	246.6	338.5	413.5
62.5°	188.6	191.0	221.2	286.5	351.8
65°	165.6	169.3	195.9	237.0	292.6
67.5°	145.1	151.1	169.3	193.4	230.9
70°	125.7	134.2	145.1	157.2	177.7
72.5°	107.6	117.3	123.3	128.2	124.5
75°	89.5	100.3	100.3	101.6	97.9
77.5°	72.5	82.2	81.0	79.8	75.0
80°	55.6	64.1	61.7	60.4	55.6
82.5°	41.1	47.2	44.7	43.5	37.5
85°	25.4	31.4	30.2	29.0	24.2
87.5°	12.1	18.1	16.9	15.7	10.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1060236

CATALOG NUMBER: S124RDRP-S1020D835-X4F0-XX-UDD-WVL-W

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	15.07	16.55	15.43	16.87	17.18	18.81	20.29	19.17	20.61	20.92
	3H	16.74	18.07	17.11	18.40	18.76	19.93	21.26	20.31	21.59	21.95
	4H	17.40	18.65	17.80	19.00	19.38	20.23	21.48	20.63	21.82	22.20
	6H	17.91	19.06	18.32	19.43	19.82	20.43	21.58	20.84	21.95	22.34
	8H	18.08	19.18	18.51	19.57	19.97	20.48	21.58	20.91	21.97	22.37
	12H	18.20	19.25	18.63	19.64	20.07	20.51	21.57	20.95	21.95	22.38
4H	2H	15.86	17.11	16.26	17.46	17.84	18.97	20.22	19.37	20.57	20.95
	3H	17.73	18.77	18.14	19.17	19.57	20.30	21.34	20.71	21.74	22.14
	4H	18.54	19.47	18.97	19.88	20.32	20.72	21.65	21.15	22.07	22.51
	6H	19.18	19.99	19.64	20.43	20.89	21.04	21.85	21.50	22.29	22.75
	8H	19.40	20.16	19.87	20.60	21.07	21.13	21.89	21.60	22.34	22.80
	12H	19.57	20.24	20.05	20.72	21.19	21.21	21.88	21.69	22.36	22.83
8H	4H	18.88	19.64	19.35	20.08	20.55	20.85	21.61	21.32	22.05	22.52
	6H	19.67	20.30	20.17	20.79	21.27	21.27	21.90	21.77	22.39	22.87
	8H	19.99	20.55	20.51	21.06	21.55	21.43	21.99	21.94	22.50	22.99
	12H	20.26	20.75	20.77	21.24	21.81	21.57	22.06	22.08	22.56	23.12
12H	4H	18.91	19.59	19.40	20.07	20.54	20.86	21.53	21.34	22.01	22.48
	6H	19.73	20.30	20.25	20.81	21.30	21.29	21.85	21.81	22.36	22.85
	8H	20.12	20.62	20.63	21.11	21.67	21.50	22.00	22.01	22.49	23.06