

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: P1060333

Luminaire Tested: S124RDRP-S1195D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060333
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1195D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

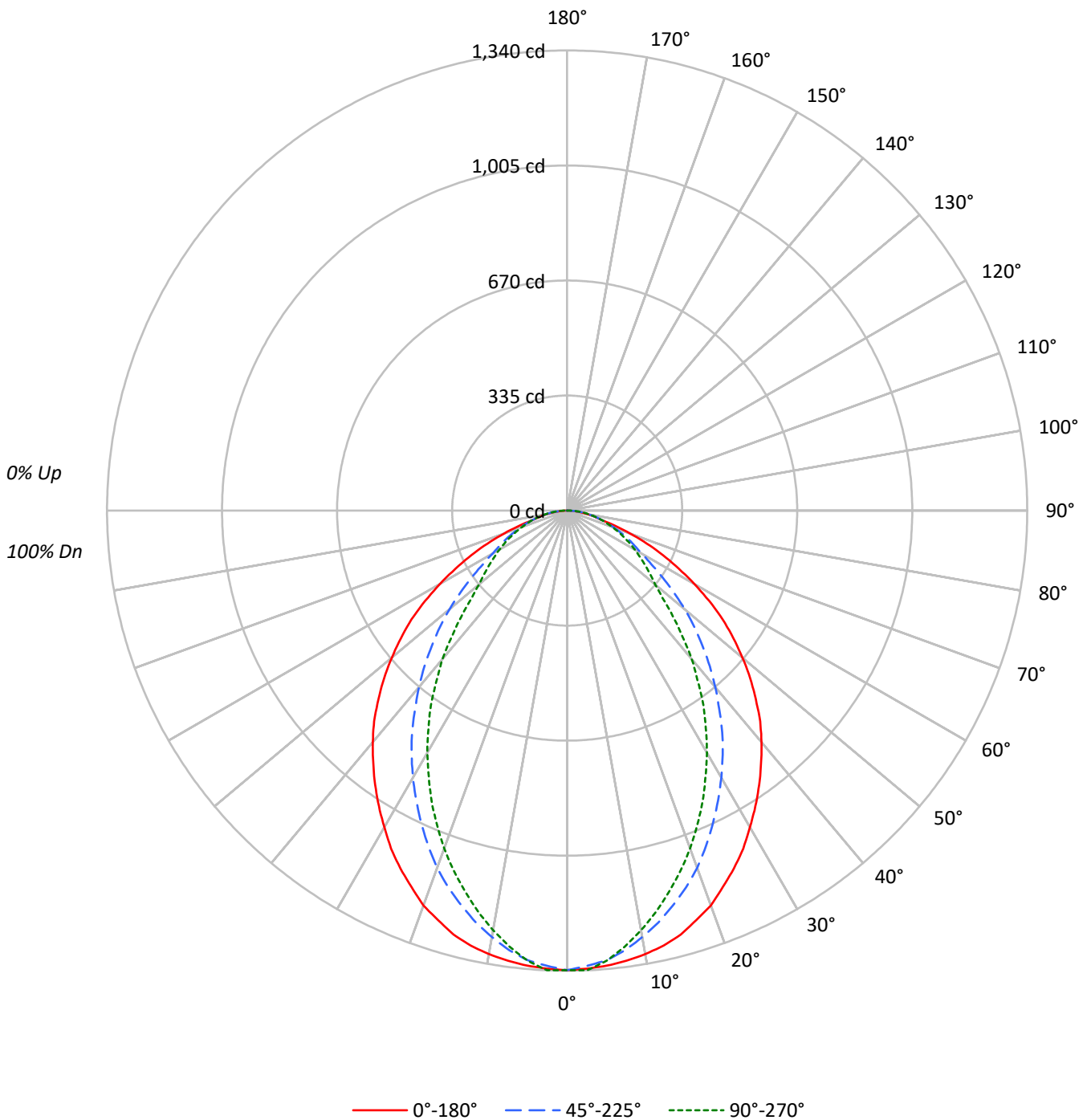
Lumens per Lamp: N/A
Luminaire Lumens: 2580.2 lumens
Efficiency: N/A
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	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	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11523	11523	11523
5°	11499	11363	11376
10°	11467	11027	10849
15°	11397	10611	10233
20°	11211	10144	9596
25°	10922	9547	8874
30°	10585	8928	8099
35°	10248	8282	7273
40°	9899	7547	6346
45°	9460	6778	5305
50°	8931	5983	4487
55°	8310	5076	4156
60°	7366	4306	3927
65°	6280	3973	3717
70°	4910	3681	3522
75°	3347	3400	3400
80°	2886	3199	3273
85°	2490	3102	3419

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9460 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.5	4.8
10°-20°	338.1	13.1
20°-30°	469.4	18.2
30°-40°	503.2	19.5
40°-50°	445.8	17.3
50°-60°	335.9	13.0
60°-70°	217.5	8.4
70°-80°	111.6	4.3
80°-90°	34.2	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°	932.0	36.1
0°-40°	1435.2	55.6
0°-60°	2216.8	85.9
0°-90°	2580.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2580.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1338	1338	1338	1338	1338	
5°	1330	1332	1315	1316	1316	126
15°	1278	1250	1190	1160	1148	360
25°	1150	1088	1005	951	934	529
35°	975	887	788	717	692	610
45°	777	676	557	470	436	599
55°	554	461	338	285	277	492
65°	308	248	195	184	182	306
75°	101	105	102	102	102	119
85°	25	27	31	35	35	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1338.2	1338.2	1338.2	1338.2	1338.2
2.5°	1335.0	1339.7	1327.1	1336.6	1339.7
5°	1330.3	1331.9	1314.6	1316.1	1316.1
7.5°	1322.4	1319.3	1291.0	1283.1	1281.5
10°	1311.4	1302.0	1261.1	1245.4	1240.7
12.5°	1297.3	1280.0	1228.1	1206.1	1196.6
15°	1278.4	1250.1	1190.3	1160.5	1147.9
17.5°	1250.1	1213.9	1151.0	1113.3	1099.1
20°	1223.4	1174.6	1107.0	1059.8	1047.2
22.5°	1185.6	1133.7	1056.7	1006.4	990.6
25°	1149.5	1088.1	1004.8	951.3	934.0
27.5°	1110.1	1041.0	951.3	894.7	872.7
30°	1064.5	990.6	897.9	838.1	814.5
32.5°	1020.5	941.9	842.8	776.8	751.6
35°	974.9	886.9	787.8	717.0	691.9
37.5°	927.7	835.0	726.5	657.3	624.3
40°	880.6	783.1	671.4	592.8	564.5
42.5°	831.8	729.6	614.8	533.1	496.9
45°	776.8	676.2	556.6	470.2	435.6
47.5°	723.3	624.3	503.2	408.8	377.4
50°	666.7	569.2	446.6	355.4	334.9
52.5°	610.1	512.6	391.5	314.5	305.1
55°	553.5	460.7	338.1	284.6	276.8
57.5°	490.6	407.3	290.9	257.9	251.6
60°	427.7	349.1	250.0	232.7	228.0
62.5°	366.4	298.8	221.7	207.6	204.4
65°	308.2	248.4	195.0	184.0	182.4
67.5°	251.6	204.4	169.8	163.5	160.4
70°	195.0	163.5	146.2	143.1	139.9
72.5°	144.7	132.1	124.2	122.7	121.1
75°	100.6	105.4	102.2	102.2	102.2
77.5°	80.2	81.8	83.3	84.9	83.3
80°	58.2	62.9	64.5	67.6	66.0
82.5°	40.9	44.0	48.7	50.3	51.9
85°	25.2	26.7	31.4	34.6	34.6
87.5°	11.0	12.6	15.7	18.9	20.4
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	18.93	20.43	19.30	20.74	21.06	15.50	16.99	15.86	17.31	17.62
	3H	20.14	21.48	20.52	21.81	22.17	17.19	18.53	17.57	18.86	19.23
	4H	20.44	21.70	20.84	22.05	22.43	17.87	19.13	18.27	19.48	19.86
	6H	20.65	21.81	21.06	22.18	22.57	18.42	19.58	18.83	19.95	20.34
	8H	20.70	21.81	21.13	22.20	22.60	18.64	19.74	19.06	20.13	20.53
	12H	20.74	21.80	21.17	22.18	22.61	18.81	19.87	19.24	20.25	20.68
4H	2H	19.07	20.33	19.47	20.68	21.06	16.16	17.42	16.56	17.77	18.14
	3H	20.48	21.52	20.89	21.92	22.32	18.07	19.11	18.48	19.51	19.91
	4H	20.90	21.84	21.34	22.26	22.70	18.87	19.81	19.30	20.22	20.66
	6H	21.23	22.04	21.68	22.49	22.95	19.56	20.37	20.01	20.82	21.28
	8H	21.32	22.09	21.79	22.53	23.00	19.83	20.59	20.29	21.04	21.51
	12H	21.40	22.08	21.88	22.56	23.03	20.06	20.74	20.54	21.22	21.69
8H	4H	21.03	21.79	21.49	22.24	22.71	19.18	19.95	19.65	20.39	20.86
	6H	21.45	22.08	21.95	22.57	23.05	20.01	20.64	20.51	21.14	21.61
	8H	21.61	22.18	22.12	22.69	23.17	20.38	20.95	20.89	21.46	21.94
	12H	21.74	22.24	22.25	22.73	23.30	20.71	21.21	21.22	21.71	22.27
12H	4H	21.04	21.72	21.52	22.20	22.67	19.21	19.90	19.70	20.37	20.85
	6H	21.48	22.04	21.99	22.55	23.04	20.07	20.64	20.59	21.15	21.64
	8H	21.68	22.19	22.19	22.68	23.24	20.50	21.01	21.01	21.50	22.06