

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: P1056474

Luminaire Tested: S125R3DR-S850D840-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056474
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D840-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

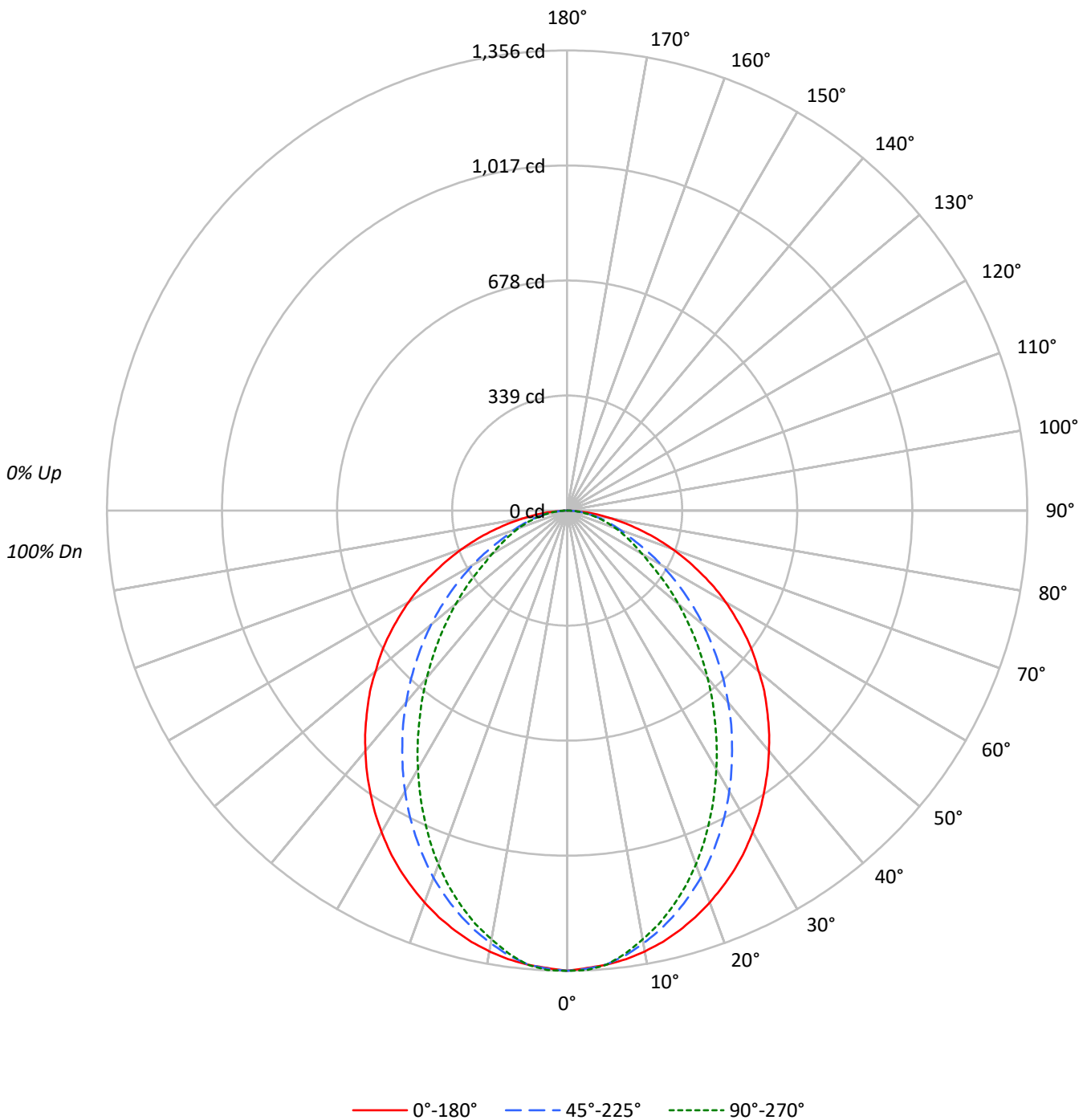
Lumens per Lamp: N/A
Luminaire Lumens: 2874.5 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86													86															
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73													73															
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63													63															
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55													55															
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48													48															
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43													43															
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38													38															
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34													34															
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31													31															
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28													28															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9587	9587	9587
5°	9531	9524	9531
10°	9468	9293	9206
15°	9372	9009	8825
20°	9246	8661	8349
25°	9106	8247	7782
30°	8928	7798	7180
35°	8733	7312	6554
40°	8536	6812	5937
45°	8329	6289	5321
50°	8108	5753	4709
55°	7904	5165	4094
60°	7625	4540	3598
65°	7246	3851	3345
70°	6804	3444	3131
75°	6151	3171	2953
80°	5345	2878	2756
85°	4177	2539	2539

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8329 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.9	4.4
10°-20°	348.4	12.1
20°-30°	492.2	17.1
30°-40°	541.8	18.8
40°-50°	505.4	17.6
50°-60°	403.5	14.0
60°-70°	271.5	9.4
70°-80°	144.6	5.0
80°-90°	40.2	1.4
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°	967.5	33.7
0°-40°	1509.3	52.5
0°-60°	2418.2	84.1
0°-90°	2874.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2874.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1356	1356	1356	1356	1356	
5°	1343	1354	1342	1338	1343	127
15°	1280	1273	1231	1210	1206	361
25°	1167	1132	1057	1011	998	537
35°	1012	952	847	781	759	633
45°	833	754	629	552	532	643
55°	641	544	419	352	332	572
65°	433	338	230	204	200	430
75°	225	150	116	109	108	240
85°	52	35	31	32	31	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1356.2	1356.2	1356.2	1356.2	1356.2
2.5°	1349.2	1360.3	1351.2	1353.2	1355.2
5°	1343.1	1354.2	1342.1	1338.1	1343.1
7.5°	1333.0	1342.1	1321.9	1312.8	1316.9
10°	1318.9	1324.9	1294.6	1282.5	1282.5
12.5°	1301.7	1301.7	1265.4	1248.2	1248.2
15°	1280.5	1273.4	1231.0	1209.8	1205.8
17.5°	1256.3	1243.1	1192.7	1165.4	1160.3
20°	1229.0	1207.8	1151.2	1115.9	1109.8
22.5°	1198.7	1171.4	1105.8	1062.4	1055.3
25°	1167.4	1132.1	1057.3	1010.9	997.7
27.5°	1132.1	1089.6	1007.8	955.3	939.2
30°	1093.7	1045.2	955.3	896.8	879.6
32.5°	1054.3	999.8	901.8	839.2	820.0
35°	1011.9	952.3	847.3	780.6	759.4
37.5°	969.5	904.8	793.8	724.1	701.9
40°	925.0	854.3	738.2	666.5	643.3
42.5°	880.6	804.9	683.7	611.0	586.7
45°	833.1	754.4	629.1	552.4	532.2
47.5°	787.7	702.9	575.6	500.9	478.7
50°	737.2	649.3	523.1	448.4	428.2
52.5°	690.7	596.8	470.6	400.9	379.7
55°	641.3	544.3	419.1	352.4	332.2
57.5°	589.8	491.8	369.6	307.0	287.8
60°	539.3	439.3	321.1	263.6	254.5
62.5°	487.8	389.8	275.7	231.3	225.2
65°	433.2	338.3	230.2	204.0	200.0
67.5°	381.7	288.8	193.9	178.7	174.7
70°	329.2	239.3	166.6	153.5	151.5
72.5°	277.7	191.9	140.4	131.3	129.3
75°	225.2	149.5	116.1	109.1	108.1
77.5°	176.7	112.1	91.9	88.9	86.8
80°	131.3	83.8	70.7	68.7	67.7
82.5°	89.9	57.6	50.5	50.5	48.5
85°	51.5	35.3	31.3	32.3	31.3
87.5°	19.2	15.1	14.1	15.1	15.1
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	19.14	20.68	19.51	21.00	21.31	15.52	17.06	15.89	17.38	17.69
	3H	20.93	22.31	21.30	22.64	23.00	17.00	18.38	17.38	18.71	19.07
	4H	21.58	22.88	21.98	23.23	23.61	17.59	18.89	17.99	19.24	19.62
	6H	22.06	23.26	22.47	23.62	24.02	18.05	19.25	18.47	19.62	20.01
	8H	22.21	23.36	22.64	23.74	24.15	18.21	19.36	18.64	19.75	20.15
	12H	22.31	23.40	22.74	23.78	24.21	18.33	19.42	18.76	19.81	20.24
4H	2H	19.28	20.58	19.68	20.92	21.30	16.20	17.50	16.60	17.85	18.23
	3H	21.25	22.33	21.66	22.73	23.13	17.88	18.96	18.29	19.36	19.76
	4H	21.99	22.97	22.42	23.38	23.82	18.58	19.56	19.01	19.97	20.41
	6H	22.59	23.43	23.04	23.88	24.34	19.17	20.02	19.62	20.46	20.92
	8H	22.79	23.59	23.26	24.03	24.50	19.38	20.17	19.84	20.61	21.08
	12H	22.94	23.65	23.42	24.13	24.60	19.54	20.25	20.02	20.72	21.19
8H	4H	22.06	22.85	22.52	23.29	23.76	18.95	19.74	19.41	20.18	20.65
	6H	22.71	23.37	23.21	23.86	24.34	19.65	20.30	20.14	20.79	21.27
	8H	22.97	23.56	23.48	24.07	24.55	19.93	20.52	20.45	21.03	21.52
	12H	23.18	23.70	23.69	24.19	24.75	20.17	20.69	20.68	21.19	21.75
12H	4H	22.05	22.76	22.53	23.24	23.71	18.99	19.70	19.48	20.18	20.65
	6H	22.71	23.30	23.22	23.81	24.30	19.72	20.31	20.23	20.82	21.31
	8H	23.00	23.52	23.51	24.02	24.58	20.06	20.58	20.57	21.08	21.64