

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: P1056520

Luminaire Tested: S125R3DR-H1270D830-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056520
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H1270D830-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

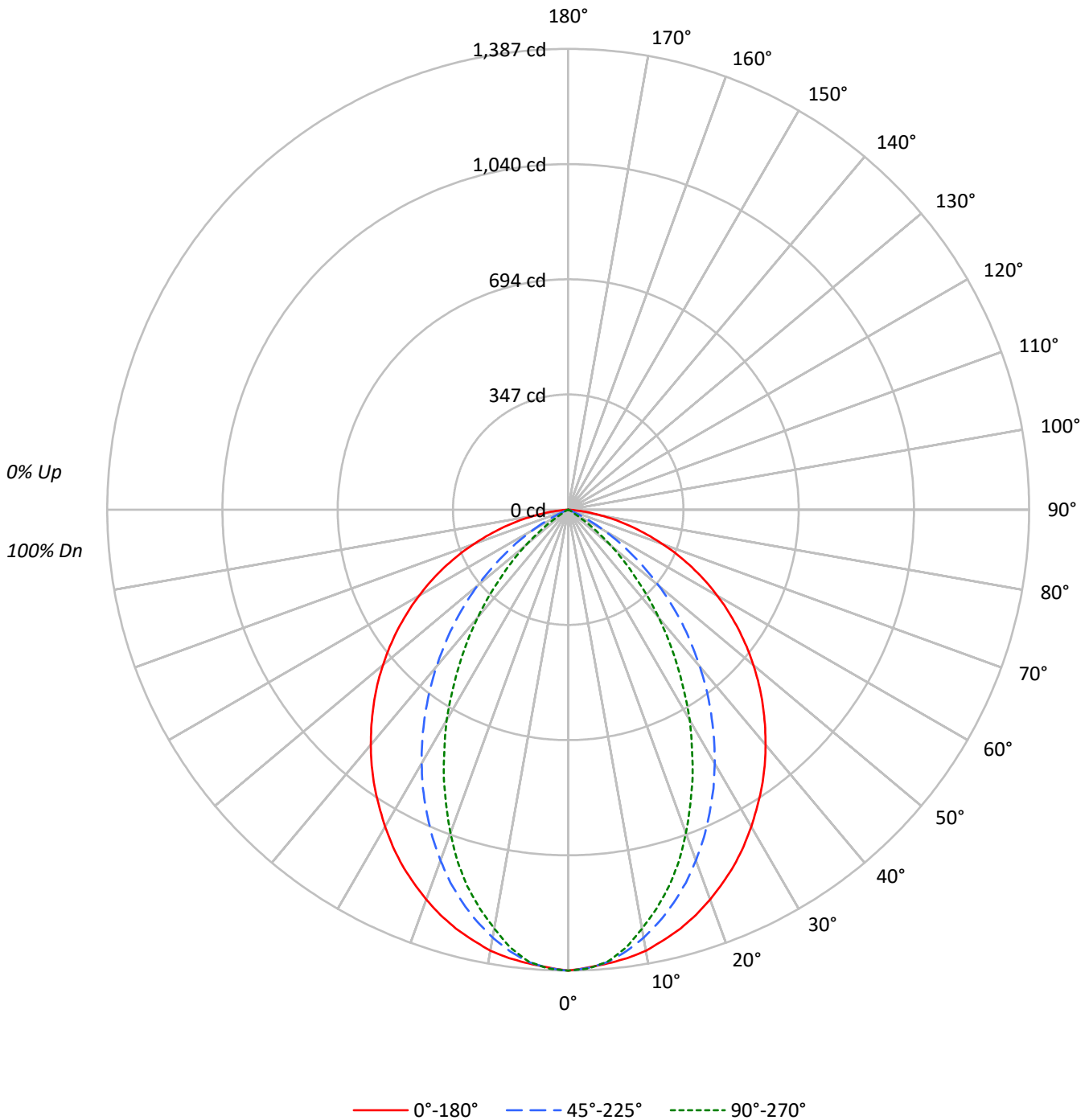
Lumens per Lamp: N/A
Luminaire Lumens: 2248.8 lumens
Efficiency: N/A
Efficacy: 61.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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

TEST NUMBER: P1056520

CATALOG NUMBER: S125R3DR-H1270D830-X4F0-XX-UDD-F-B

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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55					55			
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49					49			
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45					45			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9808	9808	9808
5°	9728	9699	9689
10°	9674	9387	9190
15°	9550	8967	8584
20°	9393	8451	7789
25°	9214	7851	6907
30°	8991	7195	5971
35°	8770	6467	4936
40°	8527	5685	3908
45°	8276	4853	2832
50°	8000	3916	1830
55°	7695	2864	813
60°	7329	1769	233
65°	6877	644	139
70°	6224	227	58
75°	5408	76	38
80°	4144	57	0
85°	1898	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8276 cd/sqm

TEST NUMBER: P1056520

CATALOG NUMBER: S125R3DR-H1270D830-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.9	5.7
10°-20°	346.0	15.4
20°-30°	468.1	20.8
30°-40°	480.9	21.4
40°-50°	398.4	17.7
50°-60°	255.8	11.4
60°-70°	123.6	5.5
70°-80°	41.8	1.9
80°-90°	5.4	0.2
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°	943.0	41.9
0°-40°	1423.9	63.3
0°-60°	2078.1	92.4
0°-90°	2248.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2248.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1387	1387	1387	1387	1387	
5°	1371	1382	1367	1359	1365	130
15°	1305	1288	1225	1183	1173	368
25°	1181	1123	1006	916	886	544
35°	1016	918	749	619	572	635
45°	828	692	485	336	283	638
55°	624	458	232	102	66	558
65°	411	227	38	11	8	407
75°	198	43	3	1	1	210
85°	23	0	0	0	0	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1387.4	1387.4	1387.4	1387.4	1387.4
2.5°	1379.2	1390.2	1380.6	1379.2	1381.9
5°	1370.9	1381.9	1366.8	1358.6	1365.4
7.5°	1361.3	1366.8	1340.7	1326.9	1329.7
10°	1347.6	1346.2	1307.7	1284.3	1280.2
12.5°	1326.9	1320.1	1269.2	1236.2	1229.3
15°	1304.9	1288.4	1225.2	1182.6	1172.9
17.5°	1278.8	1252.7	1177.1	1122.1	1108.3
20°	1248.6	1212.8	1123.4	1056.0	1035.4
22.5°	1215.6	1170.2	1067.0	987.3	959.8
25°	1181.2	1123.4	1006.5	915.8	885.5
27.5°	1142.7	1075.3	946.0	842.9	805.8
30°	1101.4	1024.4	881.4	768.7	731.5
32.5°	1058.8	973.5	816.8	694.4	649.0
35°	1016.2	918.5	749.4	618.8	572.0
37.5°	970.8	863.5	683.4	547.3	496.4
40°	924.0	807.2	616.0	473.0	423.5
42.5°	875.9	749.4	548.6	402.9	352.0
45°	827.8	691.7	485.4	335.5	283.3
47.5°	778.3	632.5	419.4	269.5	224.1
50°	727.4	574.8	356.1	210.4	166.4
52.5°	676.5	515.6	291.5	152.6	112.8
55°	624.3	457.9	232.4	101.8	66.0
57.5°	572.0	398.8	177.4	56.4	24.8
60°	518.4	342.4	125.1	19.3	16.5
62.5°	466.1	281.9	78.4	15.1	12.4
65°	411.1	226.9	38.5	11.0	8.3
67.5°	357.5	174.6	16.5	6.9	4.1
70°	301.1	126.5	11.0	4.1	2.8
72.5°	248.9	81.1	6.9	2.8	1.4
75°	198.0	42.6	2.8	1.4	1.4
77.5°	148.5	17.9	1.4	1.4	1.4
80°	101.8	8.3	1.4	1.4	0.0
82.5°	60.5	2.8	1.4	1.4	0.0
85°	23.4	0.0	0.0	0.0	0.0
87.5°	1.4	0.0	0.0	0.0	0.0
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	19.00	20.39	19.37	20.70	21.01	3.87	5.25	4.23	5.57	5.88
	3H	20.55	21.78	20.93	22.11	22.47	3.79	5.02	4.17	5.35	5.71
	4H	21.07	22.22	21.48	22.57	22.95	3.73	4.87	4.13	5.22	5.60
	6H	21.41	22.46	21.83	22.83	23.23	3.66	4.71	4.07	5.08	5.47
	8H	21.49	22.49	21.92	22.88	23.29	3.62	4.61	4.04	5.00	5.41
	12H	21.51	22.46	21.94	22.85	23.28	3.58	4.53	4.01	4.91	5.34
4H	2H	18.80	19.95	19.21	20.30	20.68	4.73	5.88	5.13	6.23	6.61
	3H	20.42	21.35	20.83	21.76	22.16	4.68	5.62	5.09	6.02	6.42
	4H	20.94	21.77	21.37	22.19	22.63	4.60	5.44	5.04	5.86	6.30
	6H	21.32	22.03	21.78	22.48	22.95	4.54	5.26	5.00	5.70	6.17
	8H	21.41	22.09	21.88	22.53	23.00	4.49	5.16	4.96	5.61	6.08
	12H	21.45	22.04	21.94	22.53	23.00	4.45	5.04	4.93	5.52	6.00
8H	4H	20.81	21.48	21.28	21.93	22.40	5.63	6.30	6.09	6.74	7.21
	6H	21.17	21.72	21.67	22.21	22.69	5.54	6.09	6.04	6.59	7.07
	8H	21.26	21.76	21.78	22.27	22.76	5.49	5.98	6.01	6.50	6.99
	12H	21.31	21.74	21.82	22.24	22.81	5.45	5.89	5.96	6.38	6.95
12H	4H	20.77	21.36	21.26	21.85	22.32	5.70	6.30	6.19	6.78	7.25
	6H	21.11	21.60	21.63	22.12	22.61	5.61	6.10	6.13	6.61	7.11
	8H	21.22	21.66	21.74	22.15	22.72	5.57	6.01	6.09	6.50	7.07