

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: P1056523

Luminaire Tested: S125R3DR-H1270D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056523
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-H1270D835-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

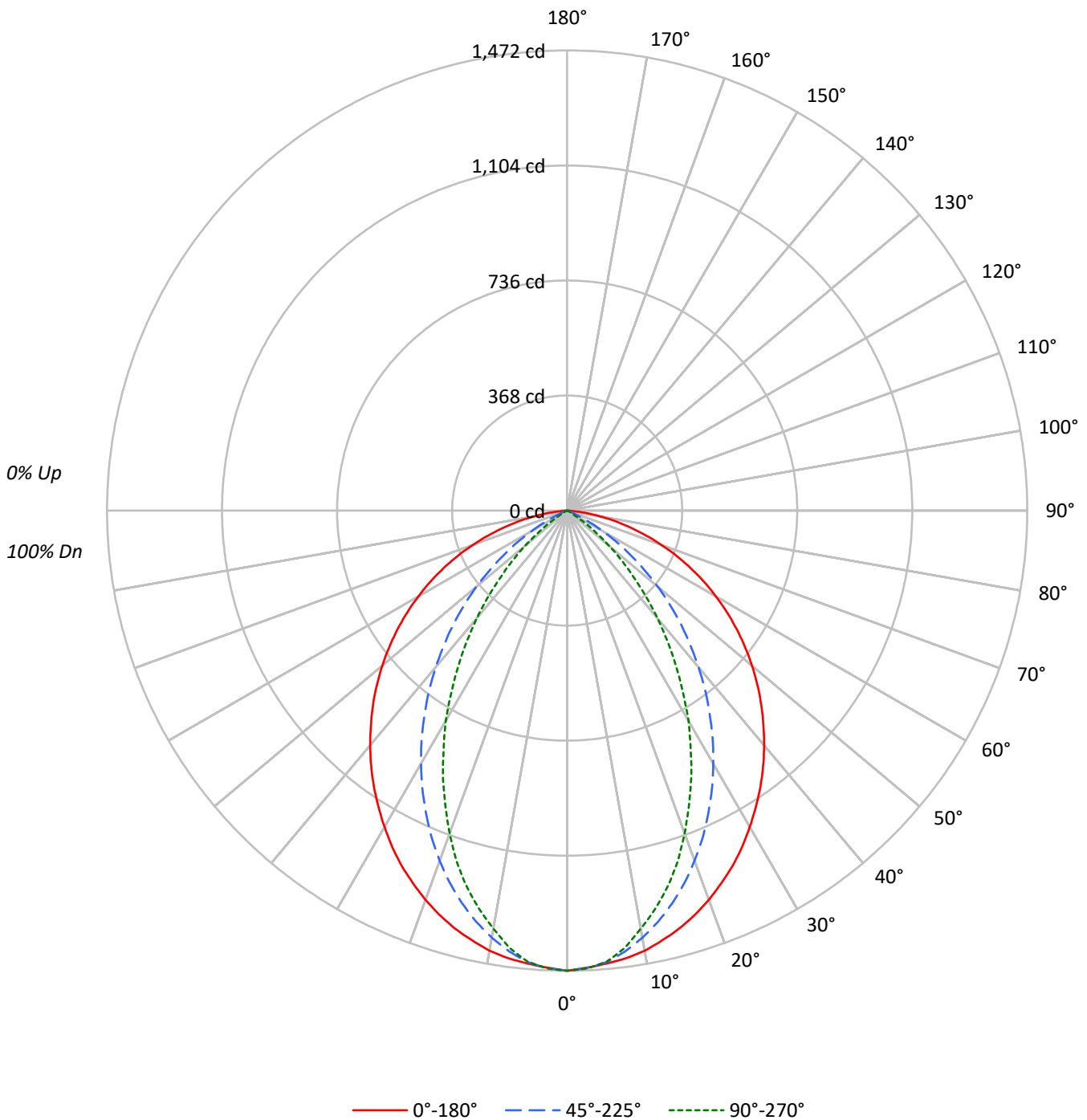
Lumens per Lamp: N/A
Luminaire Lumens: 2386.0 lumens
Efficiency: N/A
Efficacy: 65.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

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CATALOG NUMBER: S125R3DR-H1270D835-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10406	10406	10406
5°	10322	10290	10280
10°	10263	9959	9750
15°	10133	9514	9107
20°	9966	8967	8264
25°	9775	8330	7328
30°	9539	7633	6335
35°	9304	6862	5238
40°	9047	6032	4146
45°	8780	5149	3004
50°	8488	4156	1941
55°	8163	3039	863
60°	7776	1878	247
65°	7297	682	147
70°	6604	242	60
75°	5739	79	41
80°	4397	61	0
85°	2012	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8780 cd/sqm



TEST NUMBER: P1056523

CATALOG NUMBER: S125R3DR-H1270D835-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.7	5.7
10°-20°	367.1	15.4
20°-30°	496.7	20.8
30°-40°	510.2	21.4
40°-50°	422.7	17.7
50°-60°	271.4	11.4
60°-70°	131.1	5.5
70°-80°	44.4	1.9
80°-90°	5.7	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°	1000.5	41.9
0°-40°	1510.7	63.3
0°-60°	2204.8	92.4
0°-90°	2386.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2386.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1472	1472	1472	1472	1472	
5°	1454	1466	1450	1441	1449	138
15°	1384	1367	1300	1255	1244	390
25°	1253	1192	1068	972	940	577
35°	1078	974	795	656	607	674
45°	878	734	515	356	300	677
55°	662	486	247	108	70	592
65°	436	241	41	12	9	432
75°	210	45	3	2	2	223
85°	25	0	0	0	0	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1472.0	1472.0	1472.0	1472.0	1472.0
2.5°	1463.3	1474.9	1464.7	1463.3	1466.2
5°	1454.5	1466.2	1450.1	1441.4	1448.7
7.5°	1444.3	1450.1	1422.4	1407.8	1410.7
10°	1429.7	1428.2	1387.4	1362.6	1358.2
12.5°	1407.8	1400.5	1346.6	1311.5	1304.2
15°	1384.5	1367.0	1299.9	1254.6	1244.4
17.5°	1356.8	1329.0	1248.8	1190.5	1175.9
20°	1324.7	1286.7	1191.9	1120.4	1098.5
22.5°	1289.7	1241.5	1132.1	1047.5	1018.3
25°	1253.2	1191.9	1067.9	971.6	939.5
27.5°	1212.3	1140.8	1003.7	894.3	854.9
30°	1168.6	1086.9	935.1	815.5	776.1
32.5°	1123.3	1032.9	866.6	736.7	688.6
35°	1078.1	974.5	795.1	656.5	606.9
37.5°	1030.0	916.2	725.1	580.6	526.7
40°	980.4	856.4	653.6	501.9	449.3
42.5°	929.3	795.1	582.1	427.5	373.5
45°	878.2	733.8	515.0	356.0	300.5
47.5°	825.7	671.1	445.0	285.9	237.8
50°	771.8	609.8	377.9	223.2	176.5
52.5°	717.8	547.1	309.3	161.9	119.6
55°	662.3	485.8	246.6	108.0	70.0
57.5°	606.9	423.1	188.2	59.8	26.3
60°	550.0	363.3	132.8	20.4	17.5
62.5°	494.6	299.1	83.2	16.0	13.1
65°	436.2	240.7	40.8	11.7	8.8
67.5°	379.3	185.3	17.5	7.3	4.4
70°	319.5	134.2	11.7	4.4	2.9
72.5°	264.1	86.1	7.3	2.9	1.5
75°	210.1	45.2	2.9	1.5	1.5
77.5°	157.6	19.0	1.5	1.5	1.5
80°	108.0	8.8	1.5	1.5	0.0
82.5°	64.2	2.9	1.5	1.5	0.0
85°	24.8	0.0	0.0	0.0	0.0
87.5°	1.5	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	19.21	20.59	19.57	20.90	21.22	4.07	5.46	4.44	5.77	6.08
	3H	20.76	21.98	21.14	22.31	22.68	3.99	5.22	4.37	5.55	5.91
	4H	21.28	22.42	21.68	22.77	23.16	3.93	5.07	4.33	5.42	5.80
	6H	21.62	22.67	22.03	23.04	23.43	3.86	4.91	4.27	5.28	5.67
	8H	21.70	22.70	22.13	23.09	23.49	3.82	4.81	4.25	5.20	5.61
	12H	21.72	22.67	22.15	23.05	23.48	3.78	4.73	4.21	5.11	5.54
4H	2H	19.01	20.15	19.41	20.50	20.89	4.93	6.08	5.33	6.43	6.81
	3H	20.62	21.56	21.04	21.96	22.36	4.88	5.82	5.29	6.22	6.62
	4H	21.15	21.98	21.58	22.40	22.84	4.81	5.64	5.24	6.06	6.50
	6H	21.52	22.24	21.98	22.69	23.15	4.74	5.46	5.20	5.91	6.37
	8H	21.62	22.29	22.09	22.74	23.21	4.69	5.36	5.16	5.81	6.28
	12H	21.66	22.25	22.14	22.73	23.21	4.65	5.24	5.13	5.72	6.20
8H	4H	21.02	21.69	21.49	22.14	22.61	5.83	6.50	6.30	6.95	7.42
	6H	21.37	21.92	21.88	22.42	22.90	5.75	6.29	6.25	6.79	7.27
	8H	21.47	21.96	21.99	22.48	22.97	5.69	6.19	6.21	6.70	7.19
	12H	21.51	21.95	22.03	22.44	23.01	5.65	6.09	6.17	6.58	7.15
12H	4H	20.98	21.57	21.46	22.05	22.53	5.91	6.50	6.39	6.98	7.46
	6H	21.31	21.81	21.83	22.32	22.81	5.81	6.30	6.33	6.82	7.31
	8H	21.43	21.86	21.94	22.36	22.93	5.78	6.21	6.29	6.71	7.28