

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: P1056361

Luminaire Tested: S125R3DR-S1090D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056361  
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-S1090D835-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

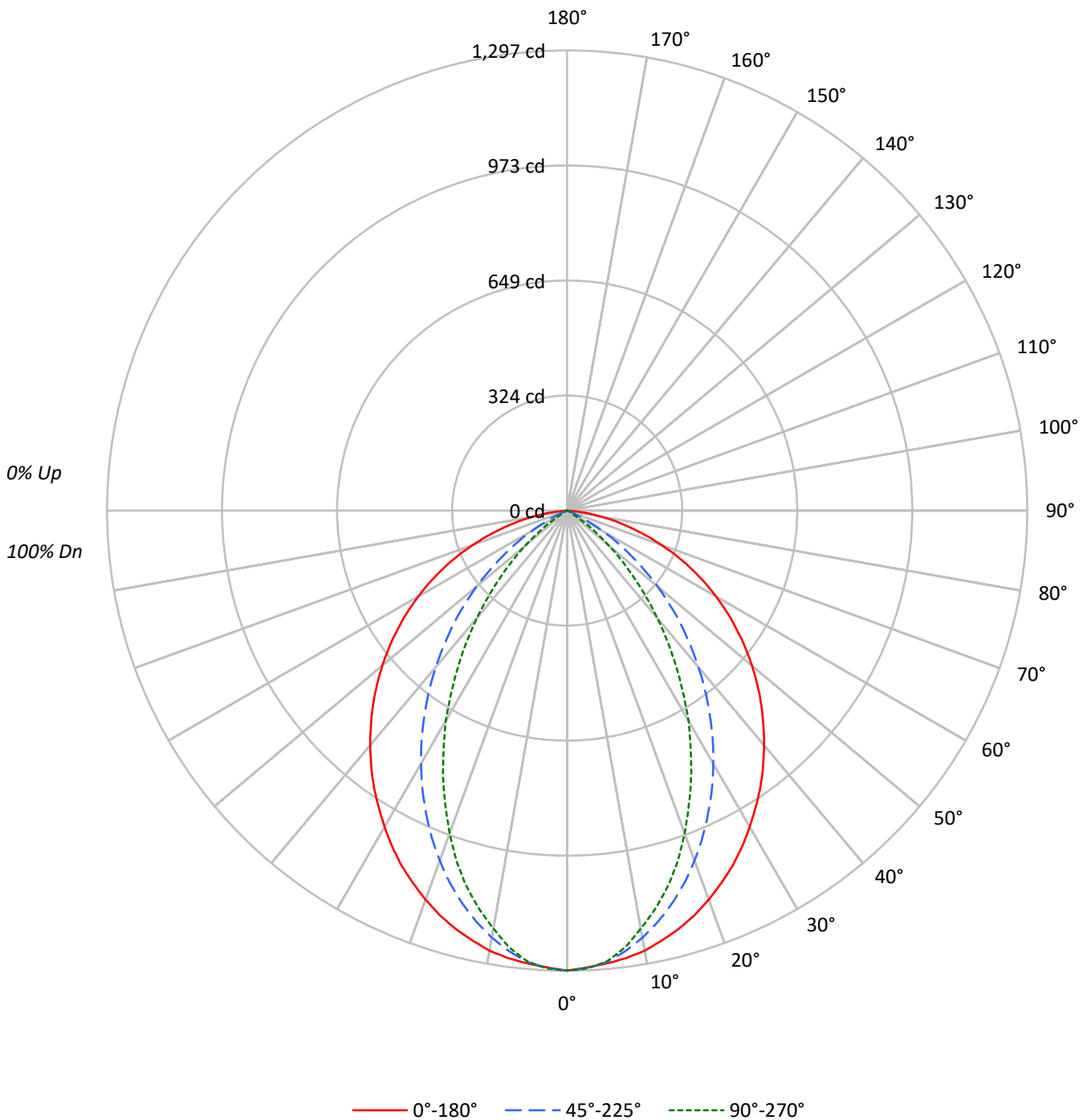
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2101.6 lumens  
Efficiency: N/A  
Efficacy: 60.6 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): 34.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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°	9166	9166	9166
5°	9092	9065	9056
10°	9040	8773	8588
15°	8925	8380	8023
20°	8778	7898	7280
25°	8611	7338	6455
30°	8402	6724	5581
35°	8196	6044	4614
40°	7970	5313	3653
45°	7734	4535	2646
50°	7476	3660	1710
55°	7190	2677	760
60°	6850	1653	218
65°	6427	602	129
70°	5816	213	54
75°	5053	71	36
80°	3872	53	0
85°	1768	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7734 cd/sqm



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CATALOG NUMBER: S125R3DR-S1090D835-X4F0-XX-UDD-F-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.4	5.7
10°-20°	323.4	15.4
20°-30°	437.5	20.8
30°-40°	449.4	21.4
40°-50°	372.3	17.7
50°-60°	239.0	11.4
60°-70°	115.5	5.5
70°-80°	39.1	1.9
80°-90°	5.0	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°	881.3	41.9
0°-40°	1330.7	63.3
0°-60°	1942.1	92.4
0°-90°	2101.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2101.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1297	1297	1297	1297	1297	
5°	1281	1292	1277	1270	1276	122
15°	1220	1204	1145	1105	1096	344
25°	1104	1050	941	856	828	508
35°	950	858	700	578	535	594
45°	774	646	454	314	265	597
55°	583	428	217	95	62	521
65°	384	212	36	10	8	380
75°	185	40	3	1	1	196
85°	22	0	0	0	0	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1296.6	1296.6	1296.6	1296.6	1296.6
2.5°	1288.9	1299.2	1290.2	1288.9	1291.5
5°	1281.2	1291.5	1277.4	1269.6	1276.1
7.5°	1272.2	1277.4	1252.9	1240.1	1242.7
10°	1259.4	1258.1	1222.1	1200.3	1196.4
12.5°	1240.1	1233.7	1186.1	1155.3	1148.9
15°	1219.5	1204.1	1145.0	1105.2	1096.2
17.5°	1195.1	1170.7	1100.0	1048.6	1035.8
20°	1166.8	1133.4	1049.9	986.9	967.7
22.5°	1136.0	1093.6	997.2	922.7	897.0
25°	1103.9	1049.9	940.7	855.9	827.6
27.5°	1067.9	1004.9	884.1	787.7	753.0
30°	1029.3	957.4	823.7	718.4	683.7
32.5°	989.5	909.8	763.3	649.0	606.6
35°	949.7	858.4	700.4	578.3	534.6
37.5°	907.3	807.0	638.7	511.5	463.9
40°	863.6	754.3	575.7	442.1	395.8
42.5°	818.6	700.4	512.7	376.5	329.0
45°	773.6	646.4	453.6	313.6	264.7
47.5°	727.3	591.1	391.9	251.9	209.5
50°	679.8	537.2	332.8	196.6	155.5
52.5°	632.3	481.9	272.4	142.6	105.4
55°	583.4	427.9	217.2	95.1	61.7
57.5°	534.6	372.7	165.8	52.7	23.1
60°	484.5	320.0	116.9	18.0	15.4
62.5°	435.6	263.4	73.2	14.1	11.6
65°	384.2	212.0	36.0	10.3	7.7
67.5°	334.1	163.2	15.4	6.4	3.9
70°	281.4	118.2	10.3	3.9	2.6
72.5°	232.6	75.8	6.4	2.6	1.3
75°	185.0	39.8	2.6	1.3	1.3
77.5°	138.8	16.7	1.3	1.3	1.3
80°	95.1	7.7	1.3	1.3	0.0
82.5°	56.5	2.6	1.3	1.3	0.0
85°	21.8	0.0	0.0	0.0	0.0
87.5°	1.3	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	18.77	20.15	19.13	20.46	20.78	3.63	5.02	4.00	5.33	5.64
	3H	20.32	21.54	20.69	21.87	22.24	3.55	4.78	3.93	5.11	5.47
	4H	20.84	21.98	21.24	22.33	22.71	3.49	4.63	3.89	4.98	5.36
	6H	21.18	22.23	21.59	22.60	22.99	3.42	4.47	3.83	4.84	5.23
	8H	21.26	22.26	21.69	22.65	23.05	3.38	4.37	3.81	4.76	5.17
	12H	21.28	22.23	21.71	22.61	23.04	3.34	4.29	3.77	4.67	5.10
4H	2H	18.57	19.71	18.97	20.06	20.45	4.50	5.64	4.90	5.99	6.37
	3H	20.18	21.12	20.60	21.52	21.92	4.45	5.38	4.86	5.78	6.19
	4H	20.71	21.54	21.14	21.96	22.40	4.37	5.20	4.80	5.62	6.06
	6H	21.08	21.80	21.54	22.24	22.71	4.30	5.02	4.76	5.47	5.93
	8H	21.18	21.85	21.65	22.30	22.77	4.25	4.92	4.72	5.37	5.84
	12H	21.21	21.81	21.70	22.29	22.76	4.21	4.80	4.70	5.29	5.76
8H	4H	20.58	21.25	21.05	21.69	22.17	5.39	6.06	5.86	6.51	6.98
	6H	20.93	21.48	21.43	21.98	22.46	5.31	5.85	5.81	6.35	6.83
	8H	21.03	21.52	21.55	22.03	22.53	5.25	5.75	5.77	6.26	6.75
	12H	21.07	21.51	21.58	22.00	22.57	5.21	5.65	5.73	6.14	6.71
12H	4H	20.53	21.13	21.02	21.61	22.08	5.47	6.06	5.95	6.54	7.02
	6H	20.87	21.37	21.39	21.88	22.37	5.37	5.86	5.89	6.38	6.87
	8H	20.99	21.42	21.50	21.92	22.49	5.34	5.77	5.85	6.27	6.84