

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056555

Luminaire Tested: S125R3DR-H375D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056555
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-H375D840-X4F0-XX-UDD-FLL-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

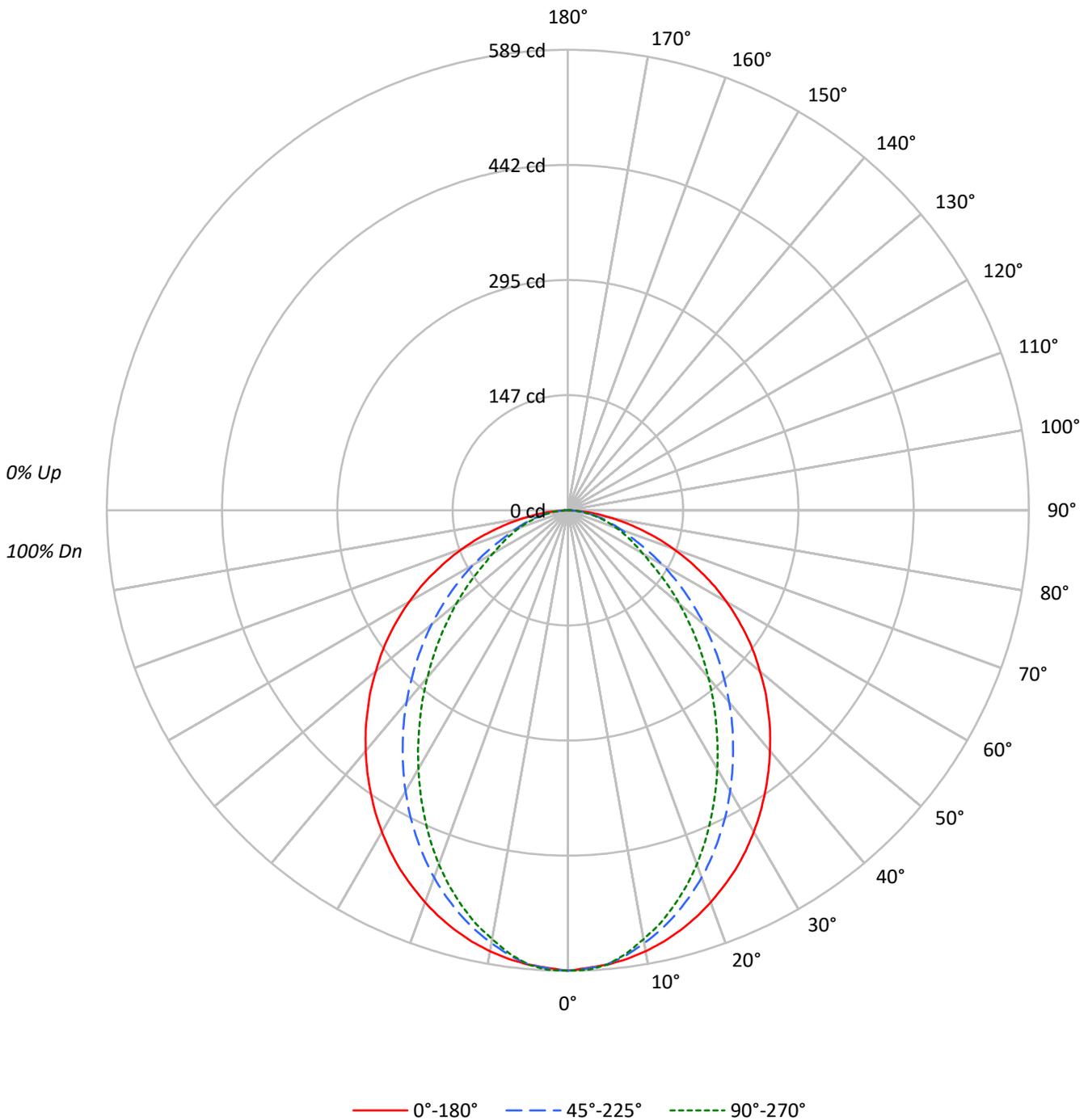
Lumens per Lamp: N/A
Luminaire Lumens: 1248.1 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4163	4163	4163
5°	4139	4135	4139
10°	4110	4035	3998
15°	4069	3912	3831
20°	4014	3761	3625
25°	3954	3581	3379
30°	3877	3386	3117
35°	3792	3175	2845
40°	3706	2958	2577
45°	3616	2731	2310
50°	3520	2498	2045
55°	3431	2243	1778
60°	3310	1971	1562
65°	3146	1673	1452
70°	2954	1494	1360
75°	2671	1377	1281
80°	2321	1250	1197
85°	1817	1103	1103

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3616 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	4.4
10°-20°	151.3	12.1
20°-30°	213.7	17.1
30°-40°	235.3	18.8
40°-50°	219.4	17.6
50°-60°	175.2	14.0
60°-70°	117.9	9.4
70°-80°	62.8	5.0
80°-90°	17.4	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°	420.1	33.7
0°-40°	655.3	52.5
0°-60°	1050.0	84.1
0°-90°	1248.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1248.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	583	588	583	581	583	55
15°	556	553	534	525	524	157
25°	507	492	459	439	433	233
35°	439	414	368	339	330	275
45°	362	328	273	240	231	279
55°	278	236	182	153	144	249
65°	188	147	100	89	87	187
75°	98	65	50	47	47	104
85°	22	15	14	14	14	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	588.9	588.9	588.9	588.9	588.9
2.5°	585.8	590.6	586.7	587.6	588.4
5°	583.2	588.0	582.7	581.0	583.2
7.5°	578.8	582.7	574.0	570.0	571.8
10°	572.6	575.3	562.1	556.9	556.9
12.5°	565.2	565.2	549.4	542.0	542.0
15°	556.0	552.9	534.5	525.3	523.5
17.5°	545.5	539.8	517.8	506.0	503.8
20°	533.6	524.4	499.9	484.5	481.9
22.5°	520.5	508.6	480.1	461.3	458.2
25°	506.9	491.5	459.1	438.9	433.2
27.5°	491.5	473.1	437.6	414.8	407.8
30°	474.9	453.8	414.8	389.4	381.9
32.5°	457.8	434.1	391.6	364.4	356.0
35°	439.4	413.5	367.9	338.9	329.7
37.5°	420.9	392.9	344.6	314.4	304.7
40°	401.6	371.0	320.5	289.4	279.3
42.5°	382.4	349.5	296.8	265.3	254.8
45°	361.7	327.5	273.2	239.8	231.1
47.5°	342.0	305.2	249.9	217.5	207.8
50°	320.1	281.9	227.1	194.7	185.9
52.5°	299.9	259.1	204.3	174.1	164.9
55°	278.4	236.3	182.0	153.0	144.3
57.5°	256.1	213.5	160.5	133.3	125.0
60°	234.1	190.7	139.4	114.4	110.5
62.5°	211.8	169.3	119.7	100.4	97.8
65°	188.1	146.9	100.0	88.6	86.8
67.5°	165.7	125.4	84.2	77.6	75.9
70°	142.9	103.9	72.3	66.6	65.8
72.5°	120.6	83.3	60.9	57.0	56.1
75°	97.8	64.9	50.4	47.4	46.9
77.5°	76.7	48.7	39.9	38.6	37.7
80°	57.0	36.4	30.7	29.8	29.4
82.5°	39.0	25.0	21.9	21.9	21.0
85°	22.4	15.3	13.6	14.0	13.6
87.5°	8.3	6.6	6.1	6.6	6.6
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	16.24	17.78	16.61	18.10	18.41	12.63	14.17	12.99	14.48	14.79
	3H	18.03	19.41	18.41	19.74	20.10	14.10	15.49	14.48	15.81	16.17
	4H	18.68	19.98	19.08	20.33	20.71	14.69	15.99	15.09	16.34	16.72
	6H	19.16	20.36	19.57	20.72	21.12	15.15	16.36	15.57	16.72	17.11
	8H	19.31	20.46	19.74	20.85	21.25	15.31	16.46	15.74	16.85	17.25
	12H	19.41	20.50	19.84	20.89	21.31	15.43	16.52	15.86	16.91	17.34
4H	2H	16.38	17.68	16.78	18.02	18.40	13.30	14.60	13.70	14.95	15.33
	3H	18.35	19.43	18.76	19.83	20.23	14.98	16.06	15.39	16.46	16.86
	4H	19.09	20.07	19.53	20.48	20.92	15.68	16.66	16.12	17.07	17.51
	6H	19.69	20.54	20.14	20.98	21.44	16.27	17.12	16.73	17.56	18.02
	8H	19.89	20.69	20.36	21.13	21.60	16.48	17.27	16.94	17.71	18.18
	12H	20.04	20.75	20.52	21.23	21.70	16.64	17.35	17.12	17.82	18.30
8H	4H	19.16	19.95	19.62	20.39	20.86	16.05	16.84	16.51	17.28	17.75
	6H	19.82	20.47	20.31	20.96	21.44	16.75	17.41	17.24	17.90	18.37
	8H	20.07	20.66	20.58	21.17	21.66	17.03	17.62	17.55	18.13	18.62
	12H	20.28	20.80	20.79	21.29	21.85	17.27	17.79	17.78	18.29	18.85
12H	4H	19.15	19.86	19.63	20.34	20.81	16.09	16.80	16.58	17.28	17.75
	6H	19.81	20.40	20.32	20.91	21.40	16.82	17.41	17.33	17.92	18.41
	8H	20.10	20.63	20.61	21.12	21.68	17.16	17.68	17.67	18.18	18.74