

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: P1056553

Luminaire Tested: S125R3DR-H375D840-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056553
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-H375D840-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

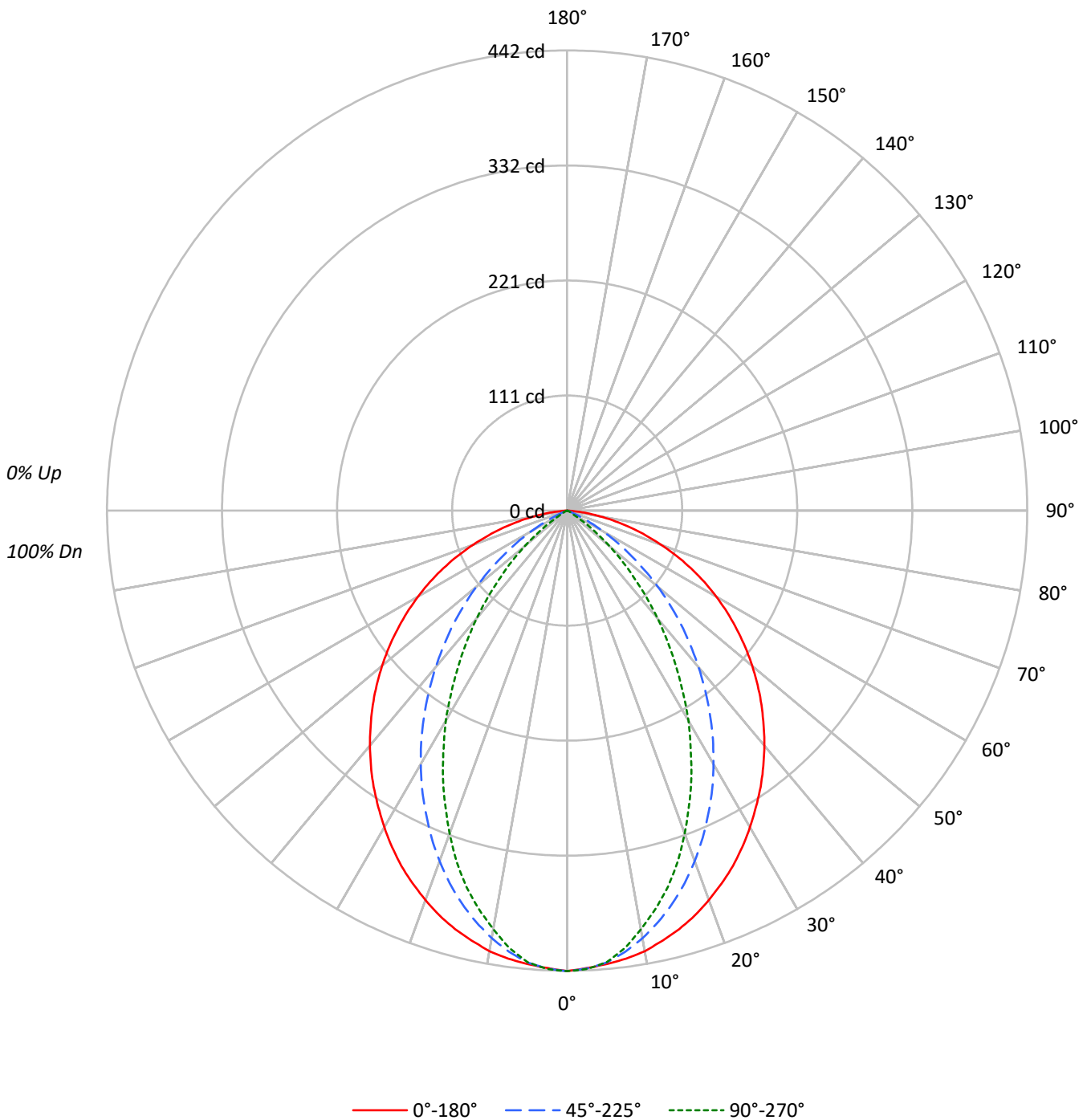
Lumens per Lamp: N/A
Luminaire Lumens: 717.1 lumens
Efficiency: N/A
Efficacy: 61.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3127	3127	3127
5°	3103	3093	3090
10°	3085	2993	2930
15°	3045	2859	2737
20°	2995	2695	2484
25°	2938	2504	2203
30°	2867	2295	1904
35°	2796	2063	1574
40°	2720	1812	1247
45°	2639	1548	903
50°	2552	1249	584
55°	2454	913	259
60°	2337	564	75
65°	2193	206	43
70°	1984	72	19
75°	1724	25	11
80°	1319	16	0
85°	608	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2639 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.1	5.7
10°-20°	110.3	15.4
20°-30°	149.3	20.8
30°-40°	153.3	21.4
40°-50°	127.1	17.7
50°-60°	81.6	11.4
60°-70°	39.4	5.5
70°-80°	13.3	1.9
80°-90°	1.7	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°	300.7	41.9
0°-40°	454.1	63.3
0°-60°	662.7	92.4
0°-90°	717.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	717.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	437	441	436	433	435	42
15°	416	411	391	377	374	117
25°	377	358	321	292	282	173
35°	324	293	239	197	182	203
45°	264	221	155	107	90	204
55°	199	146	74	32	21	178
65°	131	72	12	4	3	130
75°	63	14	1	0	0	67
85°	8	0	0	0	0	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	442.4	442.4	442.4	442.4	442.4
2.5°	439.8	443.3	440.2	439.8	440.7
5°	437.2	440.7	435.8	433.2	435.4
7.5°	434.1	435.8	427.5	423.1	424.0
10°	429.7	429.3	417.0	409.5	408.2
12.5°	423.1	420.9	404.7	394.2	392.0
15°	416.1	410.9	390.7	377.1	374.0
17.5°	407.8	399.5	375.3	357.8	353.4
20°	398.1	386.7	358.2	336.8	330.2
22.5°	387.6	373.1	340.3	314.8	306.1
25°	376.7	358.2	321.0	292.0	282.4
27.5°	364.4	342.9	301.7	268.8	256.9
30°	351.2	326.7	281.1	245.1	233.3
32.5°	337.6	310.4	260.5	221.4	207.0
35°	324.0	292.9	239.0	197.3	182.4
37.5°	309.6	275.4	217.9	174.5	158.3
40°	294.7	257.4	196.4	150.8	135.1
42.5°	279.3	239.0	175.0	128.5	112.3
45°	264.0	220.6	154.8	107.0	90.3
47.5°	248.2	201.7	133.7	85.9	71.5
50°	232.0	183.3	113.6	67.1	53.1
52.5°	215.7	164.4	93.0	48.7	36.0
55°	199.1	146.0	74.1	32.4	21.0
57.5°	182.4	127.2	56.6	18.0	7.9
60°	165.3	109.2	39.9	6.1	5.3
62.5°	148.6	89.9	25.0	4.8	3.9
65°	131.1	72.3	12.3	3.5	2.6
67.5°	114.0	55.7	5.3	2.2	1.3
70°	96.0	40.3	3.5	1.3	0.9
72.5°	79.4	25.9	2.2	0.9	0.4
75°	63.1	13.6	0.9	0.4	0.4
77.5°	47.4	5.7	0.4	0.4	0.4
80°	32.4	2.6	0.4	0.4	0.0
82.5°	19.3	0.9	0.4	0.4	0.0
85°	7.5	0.0	0.0	0.0	0.0
87.5°	0.4	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	15.03	16.42	15.40	16.73	17.04	0.00	1.29	0.27	1.60	1.92
	3H	16.58	17.81	16.96	18.14	18.50	0.00	1.05	0.20	1.38	1.75
	4H	17.10	18.25	17.51	18.60	18.98	0.00	0.90	0.16	1.25	1.63
	6H	17.44	18.49	17.86	18.86	19.26	0.00	0.74	0.10	1.11	1.50
	8H	17.52	18.52	17.95	18.91	19.32	0.00	0.64	0.07	1.03	1.44
	12H	17.54	18.49	17.97	18.88	19.31	0.00	0.56	0.04	0.94	1.37
4H	2H	14.84	15.98	15.24	16.33	16.71	0.77	1.91	1.17	2.26	2.64
	3H	16.45	17.38	16.86	17.78	18.19	0.72	1.65	1.13	2.05	2.46
	4H	16.97	17.80	17.40	18.22	18.66	0.64	1.47	1.07	1.89	2.33
	6H	17.35	18.06	17.81	18.51	18.97	0.57	1.29	1.03	1.73	2.20
	8H	17.44	18.11	17.91	18.56	19.03	0.52	1.19	0.99	1.64	2.11
	12H	17.48	18.07	17.96	18.56	19.03	0.48	1.07	0.96	1.55	2.03
8H	4H	16.84	17.51	17.31	17.96	18.43	1.66	2.33	2.12	2.77	3.24
	6H	17.20	17.75	17.70	18.24	18.72	1.57	2.12	2.07	2.61	3.10
	8H	17.29	17.79	17.81	18.30	18.79	1.52	2.01	2.04	2.52	3.02
	12H	17.34	17.77	17.85	18.27	18.84	1.48	1.91	1.99	2.41	2.98
12H	4H	16.80	17.39	17.29	17.88	18.35	1.73	2.33	2.22	2.81	3.28
	6H	17.14	17.63	17.66	18.14	18.64	1.63	2.13	2.15	2.64	3.13
	8H	17.25	17.69	17.76	18.18	18.75	1.60	2.03	2.11	2.53	3.10