

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: P1217356

Luminaire Tested: S124DRP-H290D835-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217356  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/9/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DRP-H290D835-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

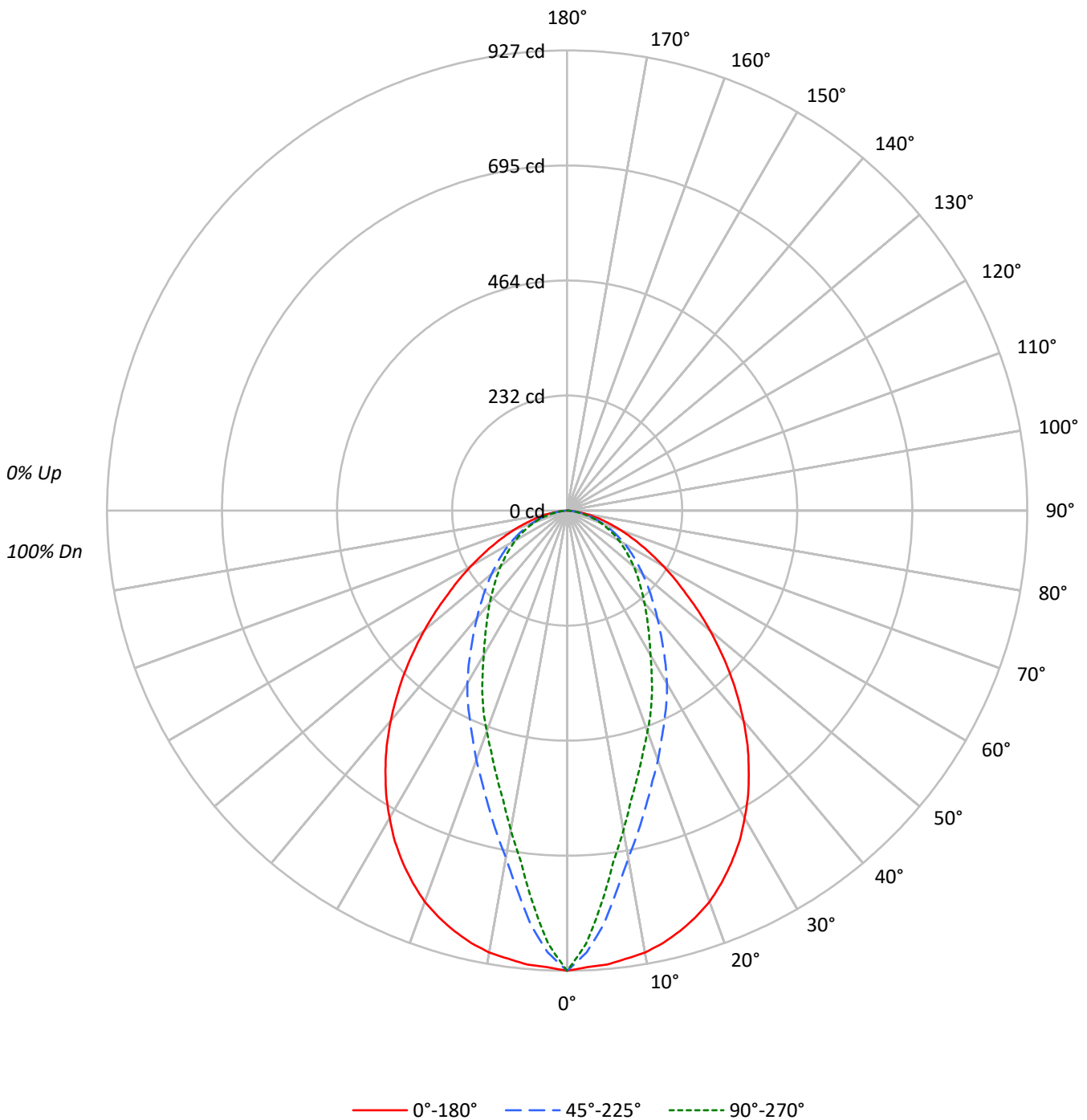
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1300.1 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8196	8196	8196
5°	8148	7434	7047
10°	8114	6373	5863
15°	8029	5624	5044
20°	7889	5032	4455
25°	7637	4527	3946
30°	7302	4105	3425
35°	6886	3640	3066
40°	6379	3261	2794
45°	5798	2966	2577
50°	5166	2729	2408
55°	4506	2536	2252
60°	3956	2361	2122
65°	3425	2178	1981
70°	2965	1972	1825
75°	2470	1742	1602
80°	1914	1415	1309
85°	1197	954	872

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5798 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.6	6.0
10°-20°	184.3	14.2
20°-30°	235.6	18.1
30°-40°	239.2	18.4
40°-50°	212.1	16.3
50°-60°	166.7	12.8
60°-70°	113.5	8.7
70°-80°	58.3	4.5
80°-90°	12.9	1.0
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°	497.5	38.3
0°-40°	736.7	56.7
0°-60°	1115.5	85.8
0°-90°	1300.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1300.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	927	927	927	927	927	
5°	918	895	838	805	794	87
15°	877	732	614	564	551	247
25°	783	574	464	420	404	360
35°	638	435	337	294	284	398
45°	464	313	237	213	206	357
55°	292	209	164	150	146	264
65°	164	126	104	97	95	164
75°	72	60	51	49	47	78
85°	12	11	9	9	9	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	927.0	927.0	927.0	927.0	927.0
2.5°	920.5	921.7	891.1	880.1	873.6
5°	918.1	894.8	837.6	805.4	794.0
7.5°	910.7	860.1	769.9	725.4	713.5
10°	903.8	820.5	709.9	665.8	653.1
12.5°	892.3	776.8	661.7	611.1	596.0
15°	877.2	732.3	614.4	563.7	551.1
17.5°	859.3	689.9	571.5	522.9	509.0
20°	838.5	650.7	534.8	485.0	473.5
22.5°	812.3	611.9	497.2	452.3	439.6
25°	782.9	573.9	464.1	419.6	404.5
27.5°	751.5	537.2	433.5	384.1	368.2
30°	715.2	502.1	402.1	350.2	335.5
32.5°	678.4	467.4	369.0	320.0	308.2
35°	638.0	434.7	337.2	294.3	284.1
37.5°	597.2	403.3	308.6	271.0	262.1
40°	552.7	372.7	282.5	249.4	242.1
42.5°	508.2	342.1	258.8	230.2	223.3
45°	463.7	313.1	237.2	212.7	206.1
47.5°	418.8	284.5	217.2	195.5	190.2
50°	375.6	257.6	198.4	179.6	175.1
52.5°	333.5	232.3	180.4	164.5	159.6
55°	292.3	208.6	164.5	149.8	146.1
57.5°	257.2	186.6	148.6	135.9	133.1
60°	223.7	165.3	133.5	122.9	120.0
62.5°	192.3	145.7	118.4	109.8	107.8
65°	163.7	126.5	104.1	96.7	94.7
67.5°	137.6	109.0	89.4	84.1	82.5
70°	114.7	91.4	76.3	71.8	70.6
72.5°	91.8	74.7	63.3	60.0	58.8
75°	72.3	59.6	51.0	48.6	46.9
77.5°	54.3	45.3	39.2	37.1	35.9
80°	37.6	32.2	27.8	26.9	25.7
82.5°	23.7	20.4	18.0	17.6	16.3
85°	11.8	11.0	9.4	9.4	8.6
87.5°	4.1	3.7	3.7	3.7	3.3
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	16.22	17.70	16.58	18.02	18.33	13.54	15.02	13.90	15.34	15.65
	3H	17.81	19.14	18.18	19.47	19.83	15.14	16.47	15.51	16.80	17.16
	4H	18.34	19.59	18.74	19.94	20.31	15.69	16.94	16.09	17.29	17.67
	6H	18.67	19.82	19.08	20.19	20.58	16.05	17.20	16.46	17.57	17.96
	8H	18.75	19.84	19.17	20.23	20.64	16.14	17.23	16.56	17.62	18.03
	12H	18.78	19.83	19.21	20.21	20.64	16.17	17.22	16.60	17.61	18.03
4H	2H	16.44	17.69	16.84	18.04	18.42	14.21	15.46	14.61	15.81	16.19
	3H	18.23	19.26	18.64	19.66	20.07	16.00	17.04	16.41	17.44	17.84
	4H	18.87	19.80	19.30	20.22	20.65	16.66	17.60	17.10	18.01	18.45
	6H	19.31	20.12	19.77	20.57	21.03	17.12	17.93	17.58	18.37	18.83
	8H	19.42	20.18	19.89	20.63	21.09	17.24	17.99	17.70	18.44	18.91
	12H	19.48	20.16	19.96	20.64	21.11	17.30	17.97	17.78	18.45	18.92
8H	4H	18.97	19.73	19.43	20.17	20.64	16.96	17.72	17.43	18.17	18.63
	6H	19.49	20.11	19.99	20.60	21.08	17.51	18.14	18.01	18.63	19.11
	8H	19.64	20.20	20.16	20.71	21.20	17.68	18.24	18.20	18.75	19.24
	12H	19.74	20.24	20.25	20.73	21.30	17.79	18.28	18.30	18.77	19.34
12H	4H	18.96	19.64	19.44	20.11	20.59	16.99	17.66	17.47	18.14	18.61
	6H	19.48	20.04	20.00	20.55	21.04	17.55	18.11	18.07	18.62	19.11
	8H	19.67	20.17	20.19	20.66	21.23	17.76	18.26	18.27	18.75	19.32