

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: P930893

Luminaire Tested: DFN2DS-SQ2F0-080DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930893
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-SQ2F0-080DS927-FLL
Description: 2 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

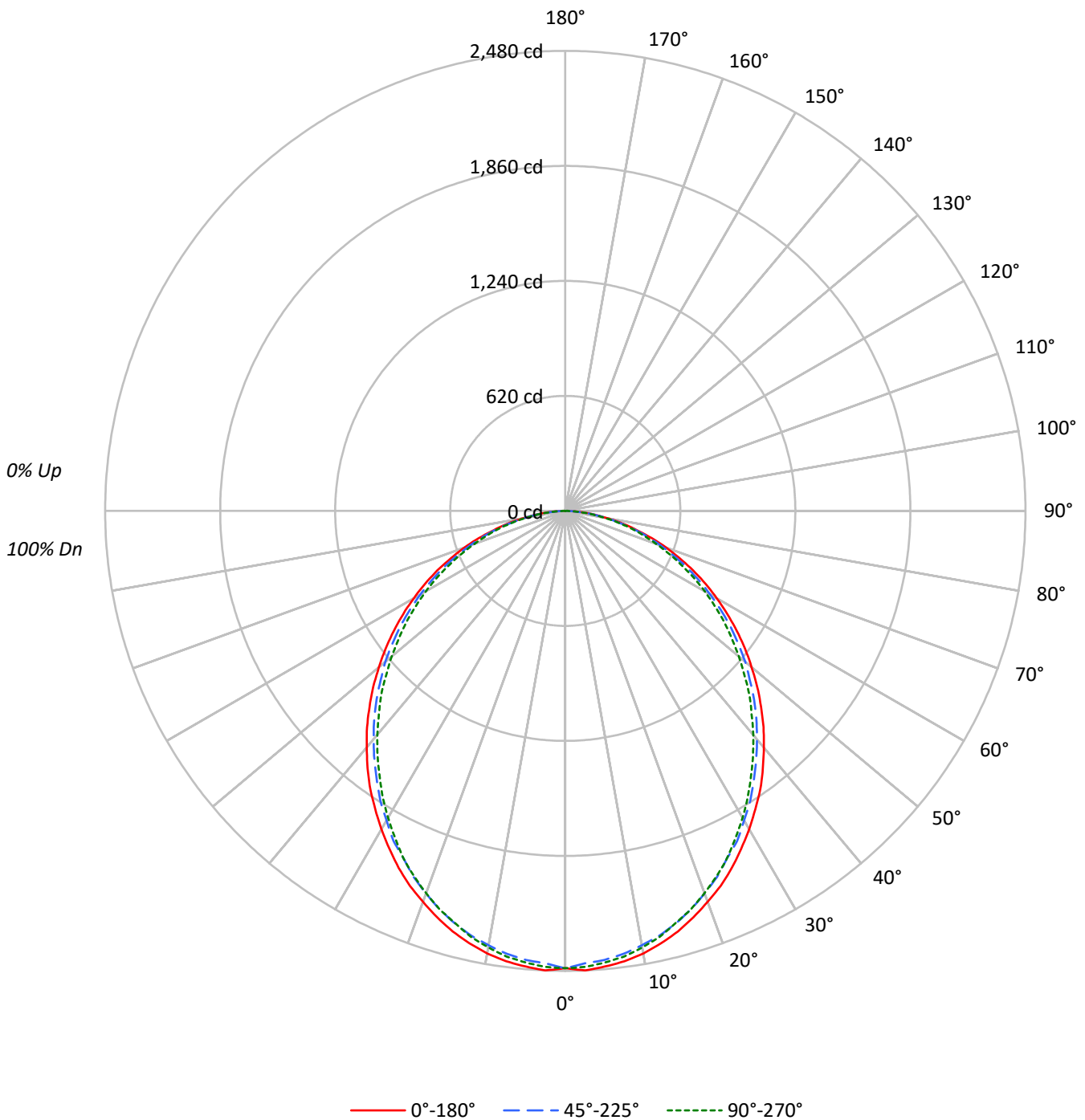
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6272.6 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 82.6
Input Voltage (V):
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.9957
Total Harmonic Distortion (THDi): 0.049
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	86	84	
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	73	71	
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	62	60	
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	54	51	
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	47	45	
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	41	39	
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	37	35	
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	33	31	
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	30	28	
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	27	26	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5421	5421	5421
5°	5442	5363	5395
10°	5410	5309	5336
15°	5343	5240	5235
20°	5247	5137	5132
25°	5154	5010	5010
30°	5032	4894	4852
35°	4919	4754	4684
40°	4777	4613	4525
45°	4637	4475	4364
50°	4484	4330	4177
55°	4326	4163	4008
60°	4149	3962	3816
65°	3960	3762	3590
70°	3719	3521	3353
75°	3382	3242	3162
80°	3004	2911	2761
85°	2450	2336	2094

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4637 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.0	3.7
10°-20°	652.9	10.4
20°-30°	959.5	15.3
30°-40°	1114.4	17.8
40°-50°	1113.0	17.7
50°-60°	970.5	15.5
60°-70°	717.4	11.4
70°-80°	405.9	6.5
80°-90°	107.1	1.7
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°	1844.4	29.4
0°-40°	2958.8	47.2
0°-60°	5042.2	80.4
0°-90°	6272.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6272.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2465	2465	2465	2465	2465	
5°	2465	2456	2430	2449	2444	234
15°	2347	2333	2302	2312	2300	661
25°	2124	2105	2065	2070	2065	977
35°	1832	1809	1771	1757	1745	1144
45°	1491	1475	1439	1413	1404	1151
55°	1128	1114	1086	1057	1046	1009
65°	761	747	723	702	690	752
75°	398	394	382	368	372	425
85°	97	95	93	85	83	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2465.3	2465.3	2465.3	2465.3	2465.3
2.5°	2479.7	2467.9	2441.7	2465.3	2460.8
5°	2465.3	2456.1	2429.9	2448.8	2444.3
7.5°	2448.8	2434.7	2408.6	2427.6	2422.9
10°	2422.9	2406.3	2377.8	2396.7	2389.7
12.5°	2387.2	2373.1	2344.6	2356.4	2351.7
15°	2346.9	2332.8	2301.9	2311.5	2299.7
17.5°	2297.1	2283.0	2252.1	2263.9	2252.1
20°	2242.5	2228.5	2195.3	2202.3	2193.0
22.5°	2188.2	2166.8	2135.9	2135.9	2131.1
25°	2124.1	2105.2	2065.0	2069.5	2065.0
27.5°	2052.9	2036.3	2005.6	1998.5	1986.7
30°	1982.0	1962.8	1927.4	1920.4	1910.8
32.5°	1906.0	1891.9	1853.9	1839.6	1830.1
35°	1832.5	1808.9	1770.9	1756.6	1744.8
37.5°	1749.5	1728.1	1690.2	1673.6	1661.8
40°	1664.3	1645.1	1607.2	1586.1	1576.5
42.5°	1581.3	1562.1	1524.4	1500.5	1486.5
45°	1491.3	1474.6	1438.9	1413.0	1403.5
47.5°	1403.5	1386.9	1348.9	1322.7	1308.6
50°	1310.9	1299.1	1265.9	1232.7	1220.9
52.5°	1220.9	1204.2	1173.6	1147.4	1130.8
55°	1128.5	1114.2	1085.8	1057.4	1045.5
57.5°	1036.0	1024.2	993.2	964.8	955.2
60°	943.4	934.2	900.9	874.8	867.7
62.5°	853.4	836.8	813.1	789.5	780.0
65°	761.1	746.8	723.1	701.7	689.9
67.5°	666.2	654.2	633.0	616.5	606.9
70°	578.5	568.9	547.6	531.0	521.6
72.5°	488.4	478.9	467.0	450.5	443.4
75°	398.1	393.6	381.6	367.5	372.2
77.5°	317.7	308.1	303.3	296.3	289.2
80°	237.2	234.7	229.9	222.9	218.0
82.5°	161.3	161.3	159.0	149.4	149.4
85°	97.1	94.8	92.6	85.3	83.0
87.5°	42.8	38.0	33.2	26.1	23.7
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	17.16	18.77	17.52	19.08	19.39	16.71	18.32	17.08	18.64	18.95
	3H	18.91	20.36	19.28	20.69	21.05	18.41	19.87	18.79	20.20	20.56
	4H	19.55	20.92	19.95	21.27	21.64	19.06	20.43	19.46	20.77	21.15
	6H	20.02	21.29	20.43	21.65	22.04	19.52	20.79	19.93	21.15	21.54
	8H	20.16	21.37	20.59	21.76	22.16	19.66	20.87	20.09	21.26	21.66
	12H	20.25	21.41	20.68	21.80	22.22	19.74	20.90	20.17	21.28	21.71
4H	2H	17.72	19.08	18.11	19.43	19.81	17.36	18.73	17.76	19.08	19.46
	3H	19.69	20.84	20.10	21.23	21.63	19.28	20.43	19.69	20.83	21.23
	4H	20.47	21.50	20.90	21.92	22.35	20.04	21.08	20.47	21.49	21.93
	6H	21.06	21.97	21.52	22.41	22.87	20.63	21.54	21.09	21.98	22.43
	8H	21.25	22.10	21.71	22.54	23.01	20.82	21.66	21.28	22.10	22.57
	12H	21.39	22.15	21.87	22.62	23.09	20.93	21.69	21.41	22.17	22.64
8H	4H	20.74	21.59	21.20	22.03	22.49	20.37	21.21	20.83	21.66	22.12
	6H	21.45	22.16	21.95	22.65	23.12	21.07	21.78	21.57	22.26	22.74
	8H	21.71	22.35	22.22	22.85	23.34	21.32	21.95	21.83	22.46	22.95
	12H	21.91	22.47	22.42	22.96	23.52	21.50	22.06	22.01	22.55	23.11
12H	4H	20.77	21.53	21.25	22.00	22.47	20.40	21.16	20.88	21.64	22.11
	6H	21.50	22.13	22.01	22.64	23.13	21.13	21.76	21.64	22.27	22.76
	8H	21.81	22.37	22.32	22.86	23.42	21.44	21.99	21.94	22.48	23.05