

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: P930983

Luminaire Tested: DFN2DS-SQ3F0-080DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930983
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-SQ3F0-080DS927-FLL
Description: 3 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

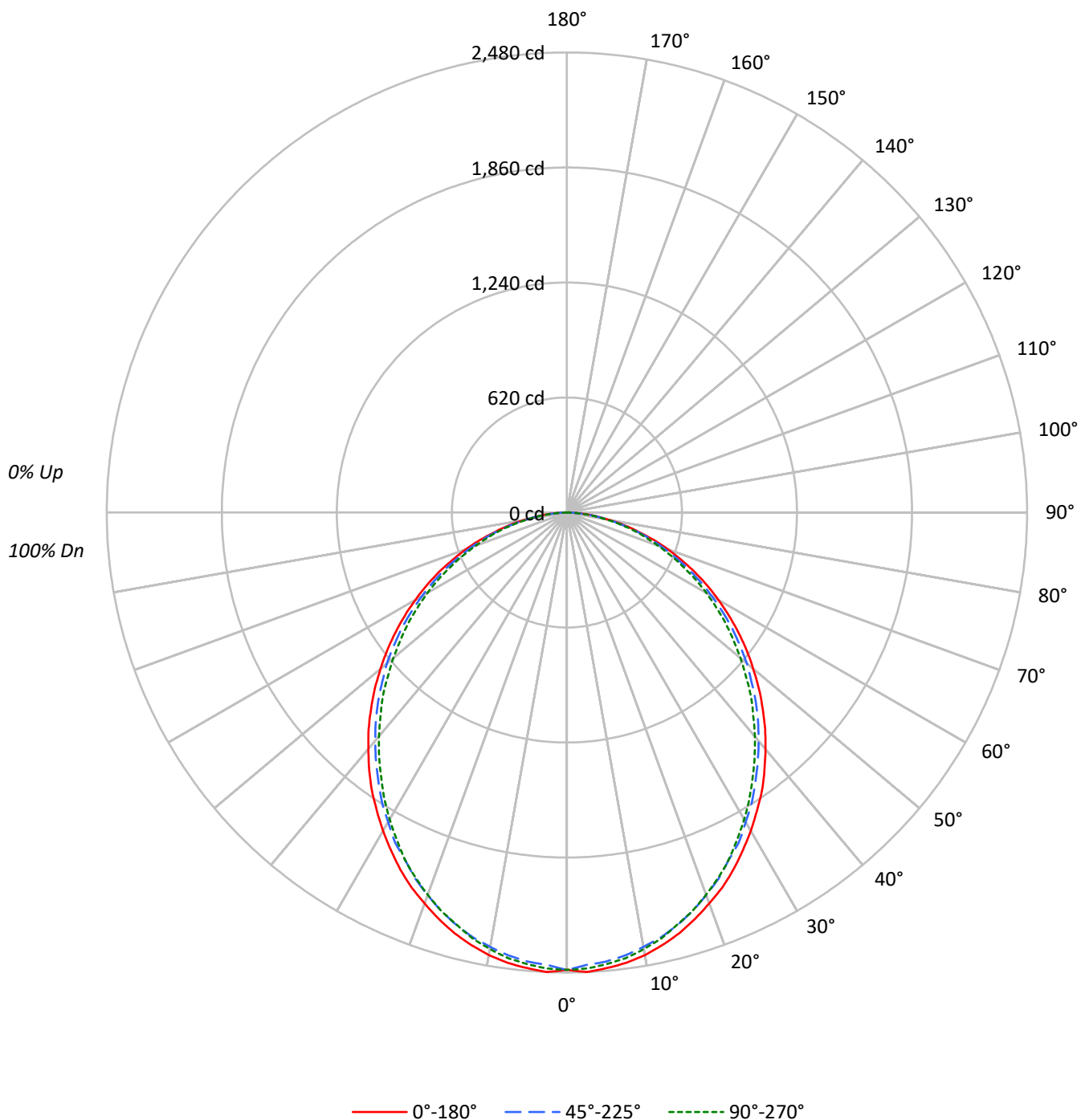
Lumens per Lamp: N/A
Luminaire Lumens: 6272.6 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.06' x L: 3.06' x H: 0')
CIE Type: Direct

Input Watts (W): 82
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9952
Total Harmonic Distortion (THDi): 0.069
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2825	2825	2825
5°	2836	2795	2811
10°	2819	2767	2780
15°	2784	2731	2728
20°	2734	2677	2674
25°	2685	2611	2611
30°	2622	2550	2528
35°	2563	2477	2441
40°	2489	2404	2358
45°	2417	2332	2274
50°	2337	2257	2176
55°	2254	2169	2089
60°	2162	2065	1988
65°	2063	1960	1870
70°	1938	1835	1747
75°	1762	1689	1648
80°	1565	1517	1438
85°	1277	1217	1091

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2417 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	14.89	16.50	15.26	16.82	17.13	14.45	16.06	14.81	16.37	16.68
	3H	16.64	18.10	17.02	18.42	18.78	16.15	17.60	16.53	17.93	18.29
	4H	17.29	18.66	17.69	19.00	19.38	16.79	18.16	17.19	18.51	18.88
	6H	17.76	19.02	18.17	19.39	19.78	17.25	18.52	17.67	18.89	19.28
	8H	17.90	19.11	18.32	19.50	19.90	17.40	18.61	17.82	19.00	19.39
	12H	17.99	19.15	18.42	19.53	19.96	17.48	18.64	17.91	19.02	19.45
4H	2H	15.45	16.82	15.85	17.17	17.54	15.10	16.47	15.50	16.81	17.19
	3H	17.43	18.57	17.84	18.97	19.37	17.02	18.17	17.43	18.56	18.96
	4H	18.20	19.24	18.63	19.65	20.09	17.78	18.81	18.21	19.23	19.66
	6H	18.80	19.70	19.25	20.14	20.60	18.37	19.27	18.82	19.71	20.17
	8H	18.99	19.84	19.45	20.28	20.74	18.55	19.40	19.01	19.84	20.30
	12H	19.12	19.88	19.60	20.36	20.83	18.67	19.43	19.15	19.90	20.37
8H	4H	18.48	19.32	18.94	19.76	20.23	18.10	18.95	18.56	19.39	19.86
	6H	19.19	19.89	19.68	20.38	20.86	18.81	19.51	19.30	20.00	20.48
	8H	19.45	20.08	19.96	20.59	21.07	19.06	19.69	19.57	20.20	20.68
	12H	19.65	20.21	20.16	20.70	21.26	19.24	19.79	19.74	20.28	20.85
12H	4H	18.50	19.26	18.98	19.74	20.21	18.14	18.90	18.62	19.37	19.84
	6H	19.24	19.87	19.75	20.37	20.86	18.87	19.50	19.38	20.01	20.49
	8H	19.55	20.11	20.06	20.60	21.16	19.17	19.73	19.68	20.22	20.78