

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: P930965

Luminaire Tested: DFN2DS-SQ3F0-070DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930965
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-SQ3F0-070DS927-FLL
Description: 3 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

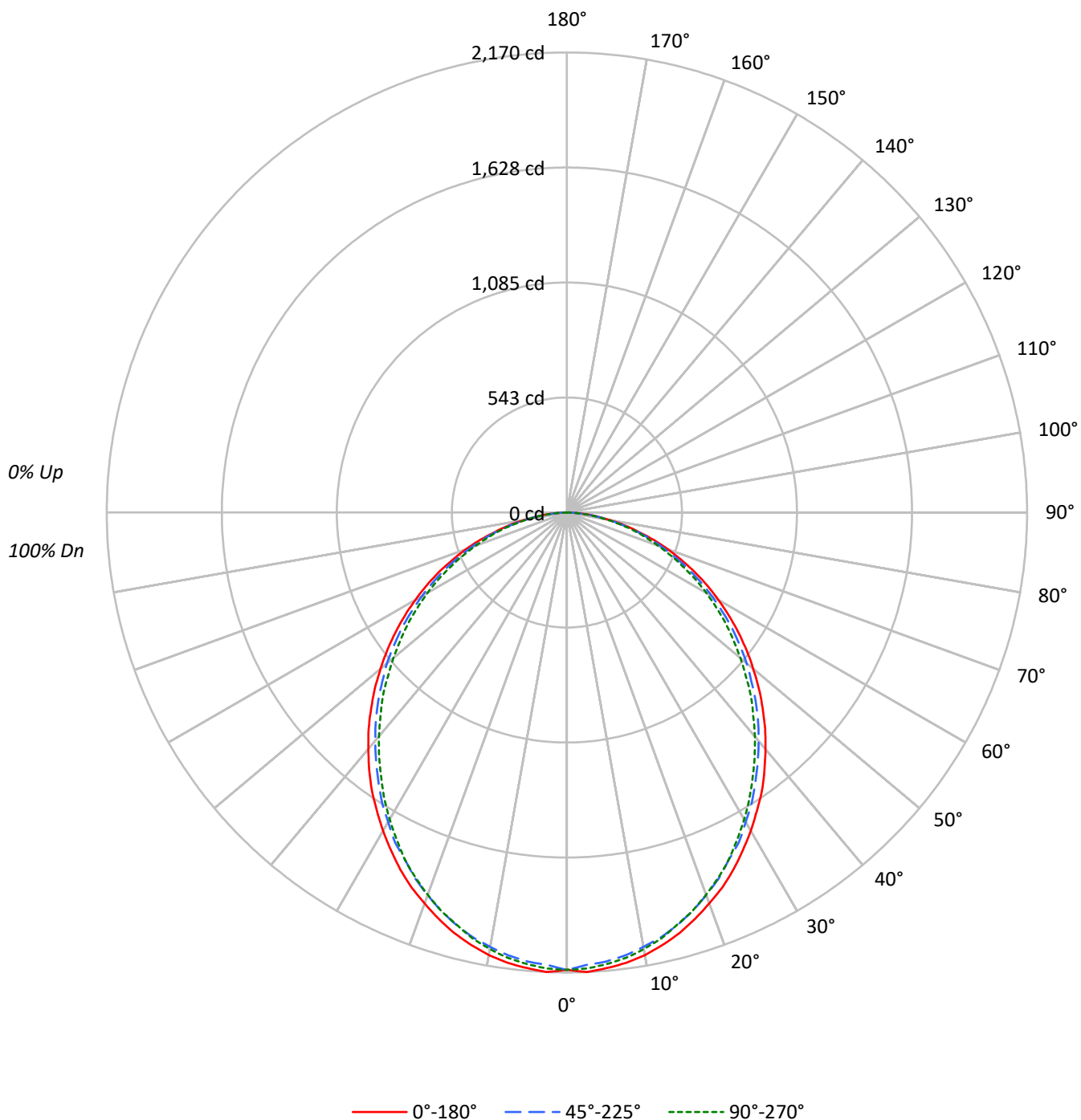
Lumens per Lamp: N/A
Luminaire Lumens: 5488.6 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.06' x L: 3.06' x H: 0')
CIE Type: Direct

Input Watts (W): 71.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9963
Total Harmonic Distortion (THDi): 0.065
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930965

CATALOG NUMBER: DFN2DS-SQ3F0-070DS927-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930965

CATALOG NUMBER: DFN2DS-SQ3F0-070DS927-FLL

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°	2472	2472	2472
5°	2481	2446	2460
10°	2467	2421	2433
15°	2436	2389	2387
20°	2393	2342	2340
25°	2350	2284	2284
30°	2294	2231	2212
35°	2243	2167	2135
40°	2178	2103	2063
45°	2114	2040	1990
50°	2045	1974	1904
55°	1973	1898	1827
60°	1892	1807	1740
65°	1806	1715	1637
70°	1696	1605	1529
75°	1542	1478	1442
80°	1369	1328	1259
85°	1117	1065	954

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2114 cd/sqm

TEST NUMBER: P930965

CATALOG NUMBER: DFN2DS-SQ3F0-070DS927-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.0	3.7
10°-20°	571.3	10.4
20°-30°	839.5	15.3
30°-40°	975.1	17.8
40°-50°	973.8	17.7
50°-60°	849.2	15.5
60°-70°	627.7	11.4
70°-80°	355.2	6.5
80°-90°	93.8	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°	1613.8	29.4
0°-40°	2588.9	47.2
0°-60°	4411.9	80.4
0°-90°	5488.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5488.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2157	2157	2157	2157	2157	
5°	2157	2149	2126	2143	2139	205
15°	2054	2041	2014	2022	2012	578
25°	1859	1842	1807	1811	1807	855
35°	1604	1583	1550	1537	1527	1001
45°	1305	1290	1259	1236	1228	1007
55°	988	975	950	925	915	883
65°	666	653	633	614	604	658
75°	348	344	334	322	326	372
85°	85	83	81	75	73	100
90°	0	0	0	0	0	

TEST NUMBER: P930965

CATALOG NUMBER: DFN2DS-SQ3F0-070DS927-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2157.2	2157.2	2157.2	2157.2	2157.2
2.5°	2169.8	2159.4	2136.5	2157.2	2153.2
5°	2157.2	2149.1	2126.2	2142.7	2138.7
7.5°	2142.7	2130.3	2107.4	2124.2	2120.0
10°	2120.0	2105.5	2080.6	2097.1	2091.0
12.5°	2088.7	2076.5	2051.6	2061.9	2057.7
15°	2053.6	2041.2	2014.1	2022.5	2012.2
17.5°	2009.9	1997.7	1970.6	1981.0	1970.6
20°	1962.2	1949.9	1920.8	1927.0	1918.9
22.5°	1914.7	1896.0	1868.9	1868.9	1864.7
25°	1858.6	1842.0	1806.9	1810.8	1806.9
27.5°	1796.3	1781.8	1754.9	1748.7	1738.4
30°	1734.2	1717.5	1686.5	1680.3	1671.9
32.5°	1667.7	1655.4	1622.2	1609.7	1601.3
35°	1603.5	1582.8	1549.5	1537.0	1526.7
37.5°	1530.9	1512.2	1478.9	1464.4	1454.0
40°	1456.3	1439.5	1406.3	1387.8	1379.4
42.5°	1383.6	1366.9	1333.9	1313.0	1300.6
45°	1304.8	1290.3	1259.0	1236.4	1228.0
47.5°	1228.0	1213.5	1180.2	1157.3	1145.1
50°	1147.1	1136.7	1107.6	1078.6	1068.2
52.5°	1068.2	1053.8	1026.9	1004.0	989.4
55°	987.5	975.0	950.1	925.2	914.8
57.5°	906.5	896.1	869.1	844.2	835.9
60°	825.5	817.3	788.4	765.5	759.3
62.5°	746.7	732.2	711.5	690.9	682.5
65°	666.0	653.4	632.7	614.0	603.7
67.5°	583.0	572.5	553.9	539.4	531.0
70°	506.2	497.9	479.1	464.6	456.4
72.5°	427.4	419.0	408.7	394.2	388.0
75°	348.4	344.4	333.8	321.6	325.7
77.5°	278.0	269.6	265.4	259.2	253.1
80°	207.5	205.4	201.2	195.0	190.8
82.5°	141.1	141.1	139.1	130.8	130.8
85°	85.0	83.0	81.0	74.6	72.6
87.5°	37.4	33.3	29.1	22.9	20.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930965

CATALOG NUMBER: DFN2DS-SQ3F0-070DS927-FLL

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	14.43	16.04	14.79	16.35	16.67	13.98	15.59	14.35	15.91	16.22
	3H	16.18	17.63	16.55	17.96	18.32	15.69	17.14	16.06	17.47	17.83
	4H	16.82	18.19	17.22	18.54	18.92	16.33	17.70	16.73	18.04	18.42
	6H	17.29	18.56	17.70	18.93	19.32	16.79	18.06	17.20	18.42	18.81
	8H	17.44	18.65	17.86	19.04	19.43	16.93	18.14	17.36	18.53	18.93
	12H	17.53	18.69	17.96	19.07	19.50	17.01	18.17	17.44	18.56	18.98
4H	2H	14.99	16.36	15.39	16.70	17.08	14.63	16.00	15.03	16.35	16.73
	3H	16.96	18.11	17.37	18.51	18.91	16.56	17.70	16.96	18.10	18.50
	4H	17.74	18.77	18.17	19.19	19.62	17.31	18.35	17.75	18.76	19.20
	6H	18.34	19.24	18.79	19.68	20.14	17.90	18.81	18.36	19.25	19.70
	8H	18.52	19.37	18.99	19.81	20.28	18.09	18.93	18.55	19.38	19.84
	12H	18.66	19.42	19.14	19.89	20.36	18.20	18.96	18.68	19.44	19.91
8H	4H	18.01	18.86	18.47	19.30	19.77	17.64	18.48	18.10	18.93	19.39
	6H	18.73	19.43	19.22	19.92	20.39	18.34	19.05	18.84	19.54	20.01
	8H	18.99	19.62	19.50	20.12	20.61	18.59	19.22	19.10	19.73	20.22
	12H	19.19	19.74	19.69	20.23	20.80	18.77	19.33	19.28	19.82	20.38
12H	4H	18.04	18.80	18.52	19.27	19.74	17.67	18.43	18.15	18.91	19.38
	6H	18.77	19.40	19.28	19.91	20.40	18.40	19.04	18.91	19.54	20.03
	8H	19.09	19.64	19.59	20.13	20.70	18.71	19.27	19.21	19.76	20.32