

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: P930833

Luminaire Tested: DFN2DS-SQ2F0-050DS835-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930833
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-SQ2F0-050DS835-FLL
Description: 2 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

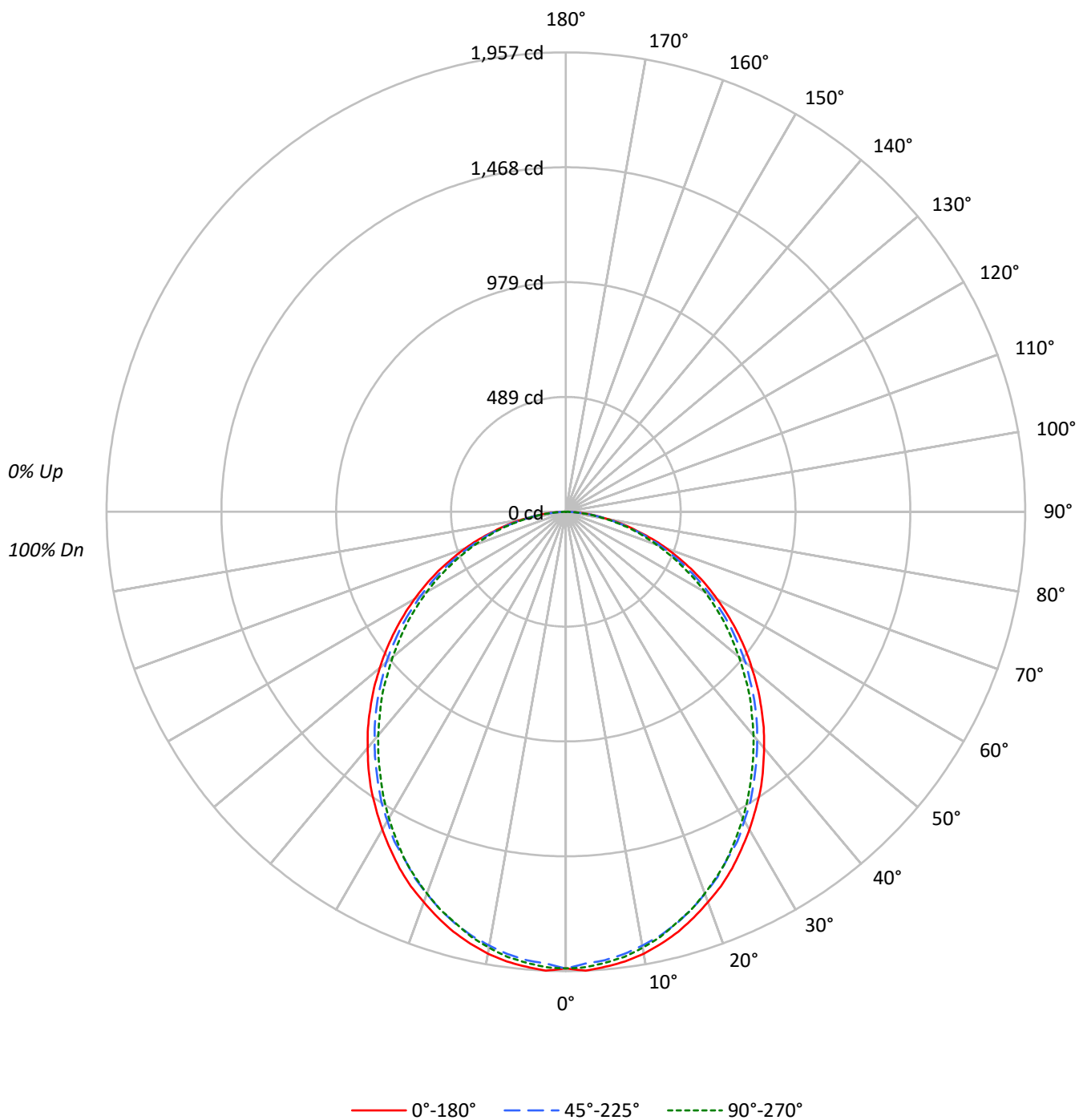
Lumens per Lamp: N/A
Luminaire Lumens: 4950.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 47.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 0.064
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930833

CATALOG NUMBER: DFN2DS-SQ2F0-050DS835-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930833

CATALOG NUMBER: DFN2DS-SQ2F0-050DS835-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°	4278	4278	4278
5°	4294	4232	4258
10°	4269	4190	4211
15°	4216	4135	4131
20°	4141	4054	4050
25°	4067	3954	3954
30°	3971	3862	3829
35°	3882	3751	3696
40°	3770	3641	3571
45°	3659	3531	3444
50°	3539	3417	3296
55°	3414	3285	3163
60°	3274	3127	3012
65°	3125	2969	2833
70°	2935	2778	2647
75°	2669	2558	2496
80°	2370	2297	2179
85°	1933	1842	1653

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3659 cd/sqm

TEST NUMBER: P930833

CATALOG NUMBER: DFN2DS-SQ2F0-050DS835-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.1	3.7
10°-20°	515.2	10.4
20°-30°	757.2	15.3
30°-40°	879.4	17.8
40°-50°	878.3	17.7
50°-60°	765.8	15.5
60°-70°	566.1	11.4
70°-80°	320.3	6.5
80°-90°	84.5	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°	1455.5	29.4
0°-40°	2334.9	47.2
0°-60°	3979.0	80.4
0°-90°	4950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4950.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1946	1946	1946	1946	1946	
5°	1946	1938	1918	1932	1929	185
15°	1852	1841	1816	1824	1815	522
25°	1676	1661	1630	1633	1630	771
35°	1446	1428	1398	1386	1377	903
45°	1177	1164	1136	1115	1108	908
55°	891	879	857	834	825	796
65°	601	589	571	554	544	594
75°	314	311	301	290	294	335
85°	77	75	73	67	66	90
90°	0	0	0	0	0	

TEST NUMBER: P930833

CATALOG NUMBER: DFN2DS-SQ2F0-050DS835-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1945.5	1945.5	1945.5	1945.5	1945.5
2.5°	1956.8	1947.5	1926.9	1945.5	1942.0
5°	1945.5	1938.2	1917.5	1932.4	1928.9
7.5°	1932.4	1921.3	1900.7	1915.8	1912.0
10°	1912.0	1898.9	1876.5	1891.3	1885.8
12.5°	1883.8	1872.7	1850.3	1859.6	1855.8
15°	1852.0	1840.9	1816.5	1824.1	1814.7
17.5°	1812.7	1801.6	1777.2	1786.5	1777.2
20°	1769.7	1758.6	1732.4	1737.9	1730.6
22.5°	1726.8	1709.9	1685.5	1685.5	1681.7
25°	1676.2	1661.3	1629.5	1633.1	1629.5
27.5°	1620.0	1606.9	1582.7	1577.1	1567.8
30°	1564.0	1549.0	1521.0	1515.4	1507.9
32.5°	1504.1	1493.0	1463.0	1451.7	1444.2
35°	1446.1	1427.5	1397.5	1386.2	1376.9
37.5°	1380.6	1363.8	1333.8	1320.7	1311.4
40°	1313.4	1298.3	1268.3	1251.6	1244.1
42.5°	1247.9	1232.8	1203.0	1184.1	1173.0
45°	1176.8	1163.7	1135.5	1115.1	1107.5
47.5°	1107.5	1094.4	1064.5	1043.8	1032.7
50°	1034.5	1025.2	999.0	972.8	963.4
52.5°	963.4	950.3	926.1	905.5	892.4
55°	890.6	879.3	856.8	834.4	825.1
57.5°	817.5	808.2	783.8	761.4	753.8
60°	744.5	737.2	711.0	690.3	684.8
62.5°	673.5	660.4	641.7	623.0	615.5
65°	600.6	589.3	570.6	553.8	544.4
67.5°	525.8	516.3	499.6	486.5	478.9
70°	456.5	449.0	432.1	419.0	411.7
72.5°	385.5	377.9	368.6	355.5	349.9
75°	314.2	310.6	301.1	290.0	293.8
77.5°	250.7	243.1	239.4	233.8	228.3
80°	187.2	185.2	181.4	175.9	172.1
82.5°	127.2	127.2	125.4	117.9	117.9
85°	76.6	74.8	73.0	67.3	65.5
87.5°	33.7	30.0	26.2	20.6	18.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930833

CATALOG NUMBER: DFN2DS-SQ2F0-050DS835-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	16.33	17.94	16.70	18.26	18.57	15.89	17.50	16.25	17.81	18.13
	3H	18.08	19.54	18.46	19.86	20.22	17.59	19.05	17.97	19.37	19.73
	4H	18.73	20.10	19.13	20.45	20.82	18.23	19.60	18.63	19.95	20.33
	6H	19.20	20.47	19.61	20.83	21.22	18.70	19.97	19.11	20.33	20.72
	8H	19.34	20.55	19.77	20.94	21.34	18.84	20.05	19.26	20.44	20.84
	12H	19.43	20.59	19.86	20.97	21.40	18.92	20.08	19.35	20.46	20.89
4H	2H	16.89	18.26	17.29	18.61	18.99	16.54	17.91	16.94	18.26	18.63
	3H	18.87	20.01	19.28	20.41	20.81	18.46	19.61	18.87	20.01	20.41
	4H	19.64	20.68	20.08	21.09	21.53	19.22	20.26	19.65	20.67	21.11
	6H	20.24	21.15	20.70	21.59	22.04	19.81	20.71	20.26	21.15	21.61
	8H	20.43	21.28	20.89	21.72	22.18	19.99	20.84	20.45	21.28	21.75
	12H	20.56	21.32	21.04	21.80	22.27	20.11	20.87	20.59	21.35	21.82
8H	4H	19.92	20.76	20.38	21.21	21.67	19.54	20.39	20.00	20.83	21.30
	6H	20.63	21.34	21.13	21.82	22.30	20.25	20.95	20.74	21.44	21.92
	8H	20.89	21.52	21.40	22.03	22.51	20.50	21.13	21.01	21.64	22.12
	12H	21.09	21.65	21.60	22.14	22.70	20.68	21.24	21.19	21.73	22.29
12H	4H	19.94	20.70	20.42	21.18	21.65	19.58	20.34	20.06	20.82	21.28
	6H	20.68	21.31	21.19	21.82	22.30	20.31	20.94	20.82	21.45	21.93
	8H	20.99	21.55	21.50	22.04	22.60	20.61	21.17	21.12	21.66	22.22