

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: P930473

Luminaire Tested: DFN2DS-PN2F0-050DS835-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930473
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-PN2F0-050DS835-FLL
Description: 2 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

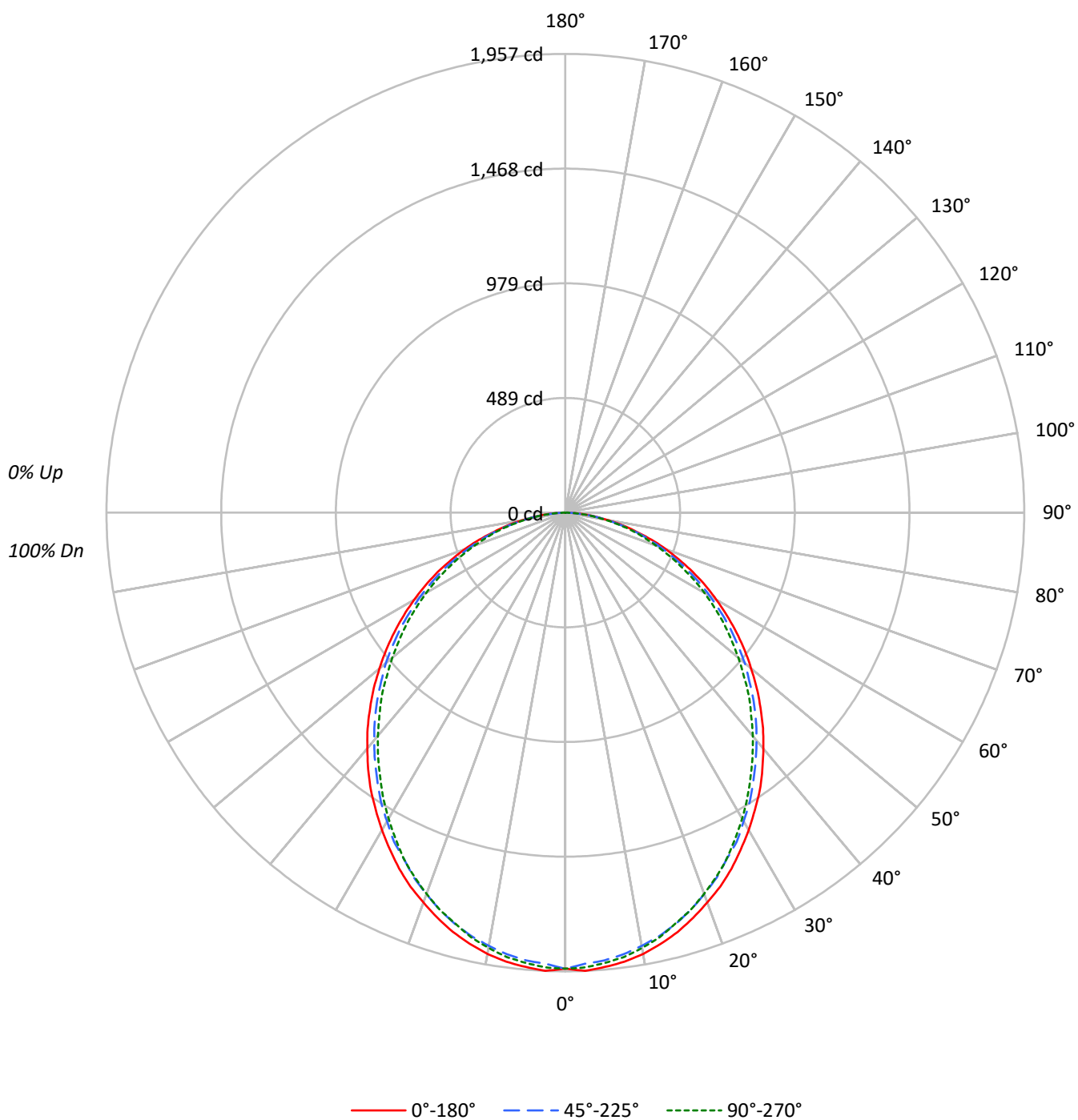
Lumens per Lamp: N/A
Luminaire Lumens: 4950.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9821
Total Harmonic Distortion (THDi): 0.08
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930473

CATALOG NUMBER: DFN2DS-PN2F0-050DS835-FLL

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°	4214	4214	4214
5°	4230	4169	4194
10°	4205	4127	4147
15°	4153	4073	4069
20°	4079	3993	3989
25°	4006	3894	3894
30°	3911	3804	3771
35°	3824	3695	3641
40°	3713	3586	3518
45°	3605	3478	3392
50°	3486	3366	3246
55°	3363	3235	3116
60°	3225	3080	2966
65°	3078	2924	2790
70°	2891	2736	2607
75°	2629	2520	2459
80°	2335	2263	2147
85°	1904	1814	1628

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3605 cd/sqm

TEST NUMBER: P930473

CATALOG NUMBER: DFN2DS-PN2F0-050DS835-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: P930473

CATALOG NUMBER: DFN2DS-PN2F0-050DS835-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: P930473

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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	16.28	17.89	16.64	18.20	18.52	15.84	17.45	16.20	17.76	18.07
	3H	18.03	19.48	18.41	19.81	20.17	17.54	18.99	17.92	19.32	19.68
	4H	18.68	20.05	19.07	20.39	20.77	18.18	19.55	18.58	19.90	20.27
	6H	19.15	20.41	19.56	20.78	21.17	18.64	19.91	19.06	20.28	20.67
	8H	19.29	20.50	19.71	20.89	21.29	18.79	20.00	19.21	20.39	20.78
	12H	19.38	20.54	19.81	20.92	21.35	18.87	20.03	19.30	20.41	20.84
4H	2H	16.84	18.21	17.24	18.56	18.93	16.49	17.86	16.89	18.20	18.58
	3H	18.82	19.96	19.23	20.36	20.76	18.41	19.55	18.82	19.95	20.35
	4H	19.59	20.63	20.02	21.04	21.48	19.17	20.20	19.60	20.62	21.05
	6H	20.19	21.09	20.64	21.53	21.99	19.76	20.66	20.21	21.10	21.56
	8H	20.38	21.22	20.84	21.67	22.13	19.94	20.79	20.40	21.23	21.69
	12H	20.51	21.27	20.99	21.75	22.21	20.06	20.82	20.54	21.29	21.76
8H	4H	19.87	20.71	20.33	21.15	21.62	19.49	20.34	19.95	20.78	21.25
	6H	20.58	21.28	21.07	21.77	22.25	20.20	20.90	20.69	21.39	21.87
	8H	20.84	21.47	21.35	21.98	22.46	20.45	21.08	20.96	21.58	22.07
	12H	21.04	21.60	21.55	22.09	22.65	20.63	21.18	21.13	21.67	22.24
12H	4H	19.89	20.65	20.37	21.13	21.60	19.53	20.29	20.01	20.76	21.23
	6H	20.62	21.26	21.13	21.76	22.25	20.26	20.89	20.77	21.40	21.88
	8H	20.94	21.50	21.45	21.99	22.55	20.56	21.12	21.07	21.61	22.17