

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: P930222

Luminaire Tested: DFN2DS-HX3F0-080DS835-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930222
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-HX3F0-080DS835-RLL
Description: 3 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

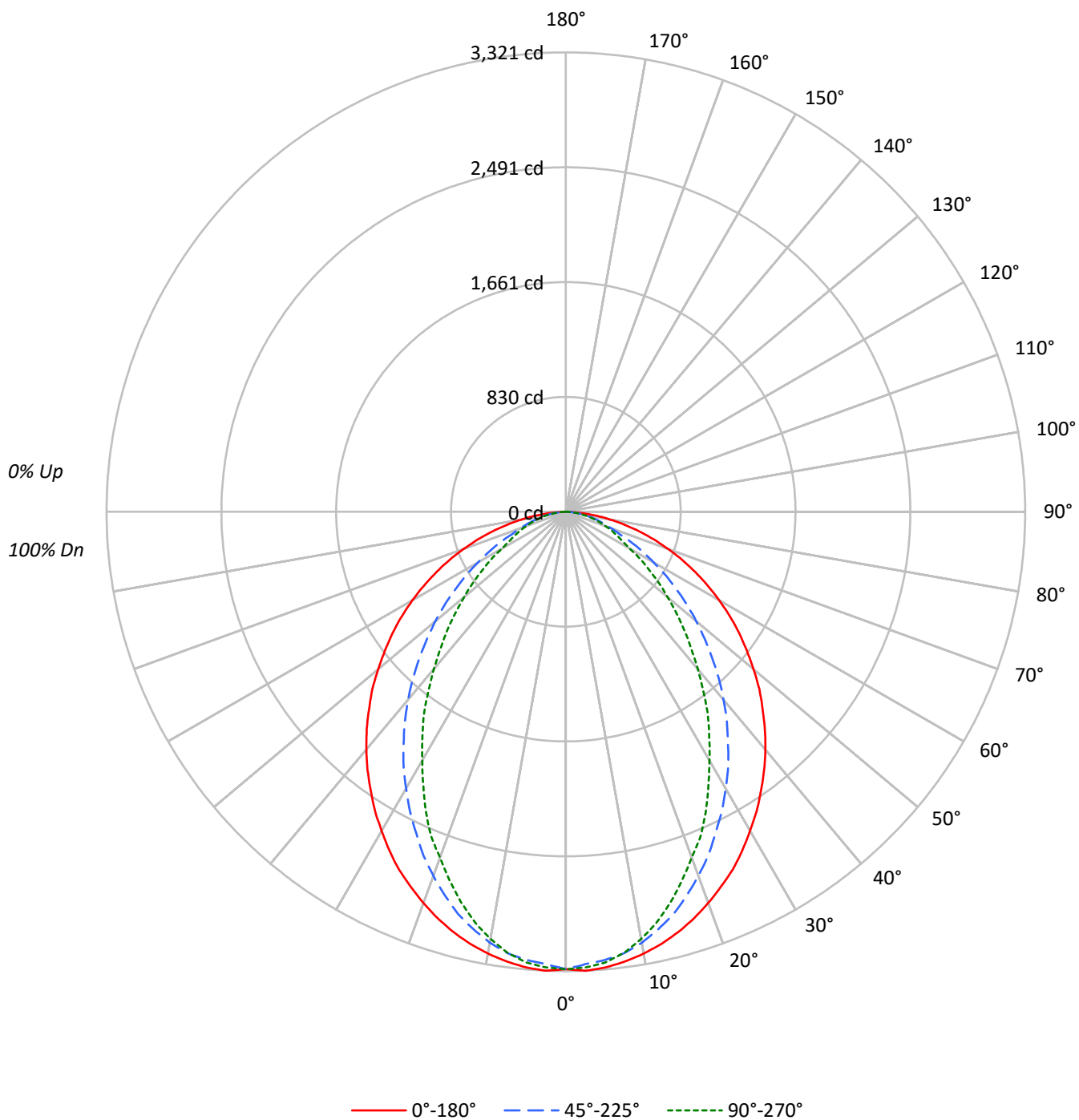
Lumens per Lamp: N/A
Luminaire Lumens: 6800.0 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.28' x L: 2.84' x H: 0')
CIE Type: Direct

Input Watts (W): 84.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9971
Total Harmonic Distortion (THDi): 0.049
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930222

CATALOG NUMBER: DFN2DS-HX3F0-080DS835-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930222

CATALOG NUMBER: DFN2DS-HX3F0-080DS835-RLL

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	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3830	3830	3830
5°	3845	3782	3803
10°	3815	3720	3689
15°	3771	3610	3506
20°	3711	3452	3279
25°	3648	3274	3059
30°	3562	3090	2777
35°	3478	2890	2530
40°	3393	2683	2244
45°	3294	2451	1985
50°	3192	2216	1731
55°	3088	1964	1487
60°	2967	1698	1234
65°	2830	1427	1123
70°	2665	1175	1033
75°	2464	1071	965
80°	2175	957	879
85°	1709	755	755

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3294 cd/sqm

TEST NUMBER: P930222

CATALOG NUMBER: DFN2DS-HX3F0-080DS835-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	309.9	4.6
10°-20°	850.7	12.5
20°-30°	1194.3	17.6
30°-40°	1301.9	19.1
40°-50°	1196.6	17.6
50°-60°	939.7	13.8
60°-70°	611.7	9.0
70°-80°	314.9	4.6
80°-90°	80.4	1.2
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°	2354.9	34.6
0°-40°	3656.8	53.8
0°-60°	5793.1	85.2
0°-90°	6800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3306	3306	3306	3306	3306	
5°	3306	3292	3252	3279	3270	314
15°	3145	3112	3010	2953	2924	886
25°	2855	2759	2561	2439	2394	1313
35°	2460	2307	2044	1855	1789	1540
45°	2011	1810	1496	1284	1212	1553
55°	1529	1296	972	793	736	1366
65°	1032	790	521	419	410	1024
75°	550	341	239	218	216	582
85°	129	66	57	57	57	154
90°	0	0	0	0	0	

TEST NUMBER: P930222

CATALOG NUMBER: DFN2DS-HX3F0-080DS835-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3306.4	3306.4	3306.4	3306.4	3306.4
2.5°	3321.3	3306.4	3273.4	3303.5	3297.5
5°	3306.4	3291.5	3252.4	3279.4	3270.5
7.5°	3279.4	3261.6	3219.7	3231.5	3216.5
10°	3243.5	3222.6	3162.9	3153.7	3135.9
12.5°	3198.8	3171.8	3090.8	3073.0	3040.0
15°	3144.8	3111.8	3010.2	2953.4	2923.5
17.5°	3081.9	3034.0	2908.3	2842.6	2794.6
20°	3010.2	2950.2	2800.7	2726.1	2660.0
22.5°	2932.4	2863.5	2689.9	2588.3	2543.5
25°	2854.6	2758.8	2561.3	2438.8	2393.7
27.5°	2761.9	2660.0	2441.6	2301.0	2232.1
30°	2663.2	2549.2	2309.9	2157.5	2076.5
32.5°	2567.3	2429.6	2184.5	2004.8	1929.9
35°	2459.7	2307.0	2043.8	1855.3	1789.2
37.5°	2354.9	2190.2	1912.1	1705.4	1630.8
40°	2244.2	2064.8	1774.3	1561.9	1484.1
42.5°	2130.5	1939.1	1636.8	1415.3	1340.6
45°	2010.8	1810.2	1496.2	1283.5	1211.8
47.5°	1897.2	1684.8	1361.6	1148.9	1083.2
50°	1771.4	1559.1	1229.9	1023.2	960.6
52.5°	1648.6	1424.1	1104.1	906.7	849.9
55°	1528.9	1295.6	972.4	793.0	736.2
57.5°	1406.4	1167.0	855.9	688.3	640.3
60°	1280.6	1041.3	733.0	580.6	532.7
62.5°	1158.1	918.7	628.3	484.8	461.0
65°	1032.4	789.8	520.6	419.1	409.8
67.5°	912.7	670.2	419.1	367.9	359.1
70°	787.0	553.7	347.0	317.1	305.1
72.5°	667.3	445.7	290.2	266.4	260.3
75°	550.5	341.0	239.4	218.4	215.6
77.5°	434.0	242.2	188.6	176.5	170.5
80°	326.0	173.7	143.5	131.7	131.7
82.5°	227.3	116.8	98.7	92.7	92.7
85°	128.6	65.7	56.8	56.8	56.8
87.5°	47.9	23.8	23.8	21.0	21.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930222

CATALOG NUMBER: DFN2DS-HX3F0-080DS835-RLL

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	15.90	17.42	16.27	17.74	18.05	11.86	13.38	12.23	13.70	14.01
	3H	17.67	19.03	18.04	19.36	19.72	13.13	14.49	13.50	14.82	15.18
	4H	18.33	19.61	18.73	19.96	20.34	13.63	14.91	14.03	15.26	15.64
	6H	18.82	20.00	19.23	20.37	20.76	14.01	15.19	14.42	15.56	15.95
	8H	18.99	20.11	19.41	20.50	20.90	14.13	15.26	14.56	15.65	16.05
	12H	19.09	20.17	19.52	20.55	20.98	14.21	15.29	14.64	15.67	16.10
4H	2H	16.00	17.28	16.40	17.63	18.01	12.56	13.84	12.96	14.19	14.56
	3H	17.94	19.00	18.35	19.40	19.80	14.00	15.06	14.41	15.46	15.86
	4H	18.69	19.64	19.12	20.06	20.50	14.60	15.56	15.03	15.97	16.41
	6H	19.28	20.11	19.74	20.55	21.01	15.09	15.92	15.54	16.36	16.82
	8H	19.49	20.27	19.96	20.71	21.18	15.25	16.03	15.71	16.47	16.94
	12H	19.65	20.34	20.13	20.82	21.29	15.37	16.06	15.85	16.54	17.01
8H	4H	18.71	19.49	19.17	19.93	20.40	14.95	15.73	15.42	16.17	16.64
	6H	19.35	19.99	19.85	20.48	20.96	15.54	16.18	16.04	16.67	17.15
	8H	19.60	20.18	20.11	20.69	21.17	15.76	16.34	16.27	16.85	17.33
	12H	19.80	20.31	20.31	20.81	21.37	15.94	16.45	16.45	16.94	17.51
12H	4H	18.70	19.39	19.18	19.87	20.34	15.00	15.69	15.48	16.17	16.64
	6H	19.33	19.91	19.84	20.42	20.90	15.60	16.18	16.12	16.69	17.18
	8H	19.61	20.12	20.12	20.62	21.18	15.88	16.39	16.39	16.88	17.44