

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: P930185

Luminaire Tested: DFN2DS-HX3F0-060DS835-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930185
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-HX3F0-060DS835-FLL
Description: 3 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

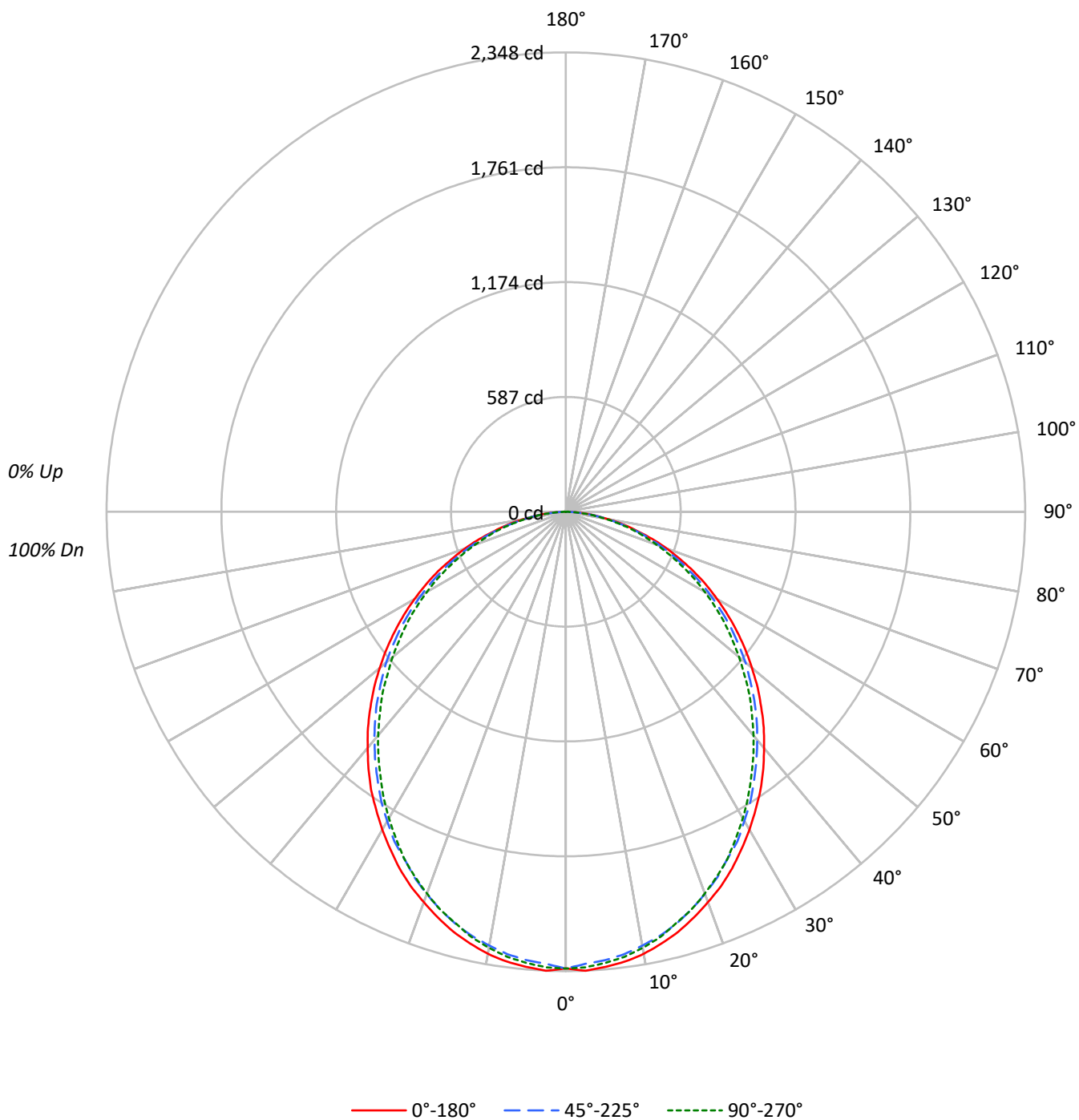
Lumens per Lamp: N/A
Luminaire Lumens: 5940.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.28' x L: 2.84' x H: 0')
CIE Type: Direct

Input Watts (W): 61.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9933
Total Harmonic Distortion (THDi): 0.066
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930185

CATALOG NUMBER: DFN2DS-HX3F0-060DS835-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930185

CATALOG NUMBER: DFN2DS-HX3F0-060DS835-FLL

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2704	2704	2704
5°	2715	2676	2691
10°	2699	2648	2662
15°	2665	2614	2612
20°	2618	2563	2560
25°	2571	2499	2499
30°	2510	2441	2420
35°	2454	2371	2336
40°	2383	2301	2257
45°	2313	2232	2177
50°	2237	2160	2083
55°	2158	2076	2000
60°	2070	1977	1904
65°	1975	1877	1791
70°	1855	1756	1673
75°	1687	1617	1578
80°	1498	1452	1377
85°	1221	1164	1045

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2313 cd/sqm

TEST NUMBER: P930185

CATALOG NUMBER: DFN2DS-HX3F0-060DS835-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.7	3.7
10°-20°	618.3	10.4
20°-30°	908.6	15.3
30°-40°	1055.3	17.8
40°-50°	1054.0	17.7
50°-60°	919.0	15.5
60°-70°	679.4	11.4
70°-80°	384.4	6.5
80°-90°	101.4	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°	1746.6	29.4
0°-40°	2801.8	47.2
0°-60°	4774.8	80.4
0°-90°	5940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2335	2335	2335	2335	2335	
5°	2335	2326	2301	2319	2315	222
15°	2222	2209	2180	2189	2178	626
25°	2011	1994	1955	1960	1955	926
35°	1735	1713	1677	1663	1652	1084
45°	1412	1396	1363	1338	1329	1090
55°	1069	1055	1028	1001	990	955
65°	721	707	685	664	653	713
75°	377	373	361	348	352	402
85°	92	90	88	81	79	108
90°	0	0	0	0	0	

TEST NUMBER: P930185

CATALOG NUMBER: DFN2DS-HX3F0-060DS835-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2334.6	2334.6	2334.6	2334.6	2334.6
2.5°	2348.2	2337.0	2312.2	2334.6	2330.3
5°	2334.6	2325.8	2301.0	2318.9	2314.6
7.5°	2318.9	2305.6	2280.8	2298.9	2294.4
10°	2294.4	2278.7	2251.7	2269.6	2262.9
12.5°	2260.6	2247.2	2220.3	2231.5	2227.0
15°	2222.4	2209.1	2179.8	2188.9	2177.7
17.5°	2175.3	2162.0	2132.7	2143.8	2132.7
20°	2123.6	2110.3	2078.8	2085.5	2076.7
22.5°	2072.2	2051.9	2022.6	2022.6	2018.1
25°	2011.4	1993.6	1955.4	1959.7	1955.4
27.5°	1944.0	1928.3	1899.2	1892.6	1881.4
30°	1876.9	1858.7	1825.2	1818.5	1809.4
32.5°	1804.9	1791.6	1755.6	1742.0	1733.0
35°	1735.4	1713.0	1677.0	1663.4	1652.2
37.5°	1656.8	1636.5	1600.6	1584.8	1573.6
40°	1576.0	1557.9	1522.0	1502.0	1492.9
42.5°	1497.4	1479.3	1443.6	1421.0	1407.6
45°	1412.2	1396.4	1362.6	1338.1	1329.0
47.5°	1329.0	1313.3	1277.4	1252.6	1239.2
50°	1241.4	1230.2	1198.8	1167.3	1156.1
52.5°	1156.1	1140.4	1111.3	1086.6	1070.9
55°	1068.7	1055.1	1028.2	1001.3	990.1
57.5°	981.1	969.9	940.6	913.7	904.6
60°	893.4	884.6	853.2	828.4	821.7
62.5°	808.1	792.4	770.0	747.6	738.6
65°	720.7	707.2	684.8	664.5	653.3
67.5°	630.9	619.5	599.5	583.8	574.7
70°	547.8	538.8	518.5	502.8	494.0
72.5°	462.5	453.5	442.3	426.6	419.9
75°	377.0	372.8	361.3	348.0	352.5
77.5°	300.8	291.8	287.2	280.6	273.9
80°	224.6	222.2	217.7	211.0	206.5
82.5°	152.7	152.7	150.5	141.5	141.5
85°	91.9	89.8	87.6	80.7	78.6
87.5°	40.5	36.0	31.4	24.8	22.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930185

CATALOG NUMBER: DFN2DS-HX3F0-060DS835-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	14.74	16.35	15.10	16.66	16.98	14.29	15.91	14.66	16.22	16.53
	3H	16.49	17.94	16.87	18.27	18.63	16.00	17.45	16.38	17.78	18.14
	4H	17.14	18.50	17.53	18.85	19.23	16.64	18.01	17.04	18.36	18.73
	6H	17.60	18.87	18.02	19.24	19.63	17.10	18.37	17.51	18.74	19.13
	8H	17.75	18.96	18.17	19.35	19.75	17.24	18.46	17.67	18.84	19.24
	12H	17.84	19.00	18.27	19.38	19.81	17.33	18.49	17.76	18.87	19.30
4H	2H	15.30	16.67	15.70	17.02	17.39	14.95	16.32	15.35	16.66	17.04
	3H	17.27	18.42	17.68	18.82	19.22	16.87	18.01	17.28	18.41	18.81
	4H	18.05	19.09	18.48	19.50	19.94	17.63	18.66	18.06	19.08	19.51
	6H	18.65	19.55	19.10	19.99	20.45	18.22	19.12	18.67	19.56	20.02
	8H	18.84	19.68	19.30	20.13	20.59	18.40	19.25	18.86	19.69	20.15
	12H	18.97	19.73	19.45	20.20	20.67	18.52	19.28	19.00	19.75	20.22
8H	4H	18.32	19.17	18.79	19.61	20.08	17.95	18.80	18.41	19.24	19.70
	6H	19.04	19.74	19.53	20.23	20.71	18.66	19.36	19.15	19.85	20.32
	8H	19.30	19.93	19.81	20.44	20.92	18.91	19.54	19.42	20.04	20.53
	12H	19.50	20.06	20.00	20.55	21.11	19.08	19.64	19.59	20.13	20.69
12H	4H	18.35	19.11	18.83	19.59	20.06	17.99	18.75	18.47	19.22	19.69
	6H	19.08	19.72	19.59	20.22	20.71	18.72	19.35	19.23	19.85	20.34
	8H	19.40	19.96	19.91	20.45	21.01	19.02	19.58	19.53	20.07	20.63