

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: P930119

Luminaire Tested: DFN2DS-HX2F0-060DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930119
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-HX2F0-060DS927-FLL
Description: 2 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

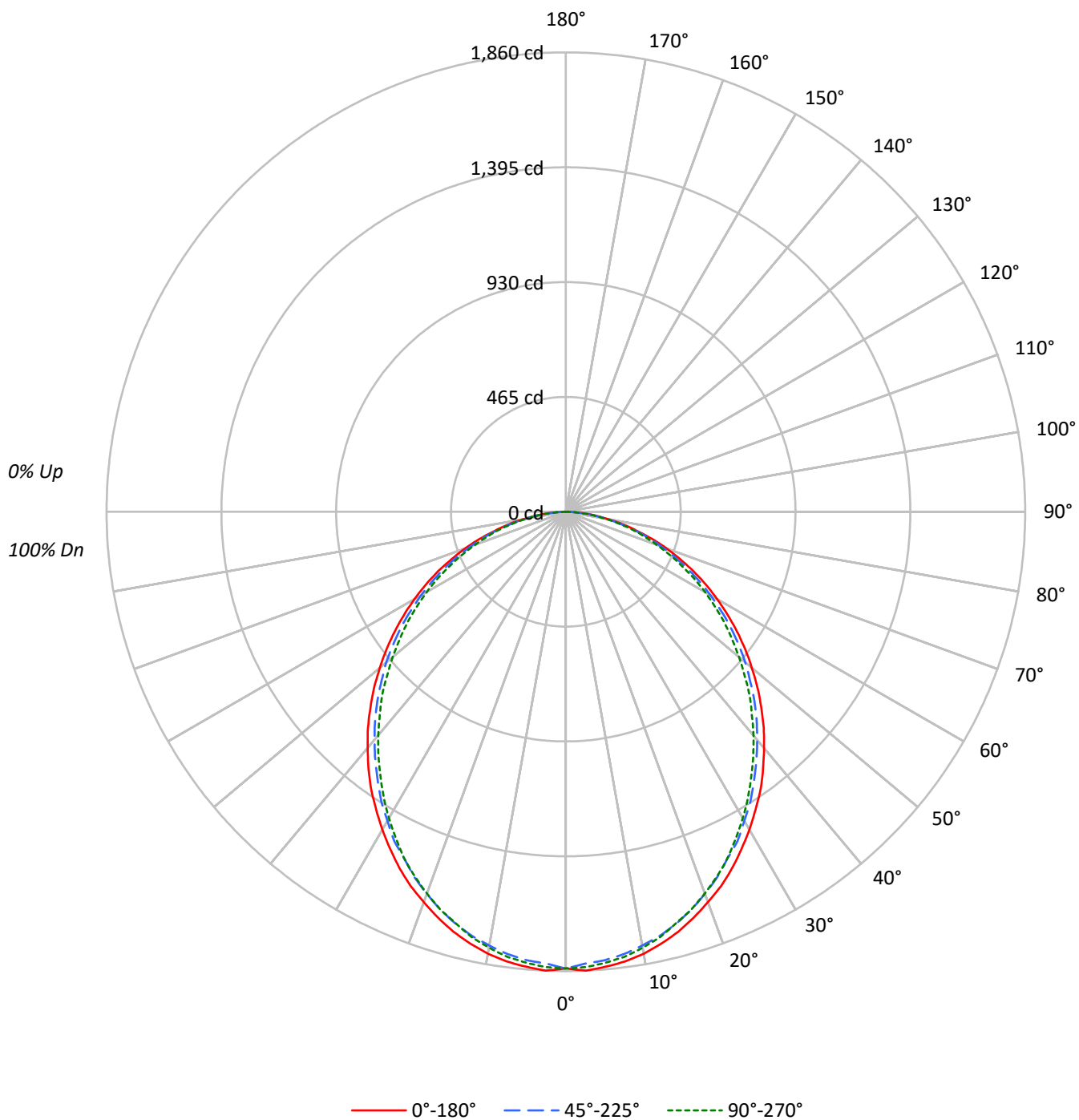
Lumens per Lamp: N/A
Luminaire Lumens: 4704.5 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 61.8
Input Voltage (V): 120
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

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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°	4357	4357	4357
5°	4373	4310	4336
10°	4348	4267	4288
15°	4293	4211	4207
20°	4217	4128	4124
25°	4141	4026	4026
30°	4044	3933	3899
35°	3953	3820	3764
40°	3839	3707	3637
45°	3727	3596	3507
50°	3604	3480	3356
55°	3477	3345	3221
60°	3334	3184	3067
65°	3182	3024	2885
70°	2989	2829	2695
75°	2718	2604	2542
80°	2414	2339	2218
85°	1968	1876	1684

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3727 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.0	3.7
10°-20°	489.7	10.4
20°-30°	719.6	15.3
30°-40°	835.8	17.8
40°-50°	834.7	17.7
50°-60°	727.9	15.5
60°-70°	538.1	11.4
70°-80°	304.4	6.5
80°-90°	80.3	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°	1383.3	29.4
0°-40°	2219.1	47.2
0°-60°	3781.7	80.4
0°-90°	4704.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4704.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1849	1849	1849	1849	1849	
5°	1849	1842	1822	1837	1833	176
15°	1760	1750	1726	1734	1725	496
25°	1593	1579	1549	1552	1549	733
35°	1374	1357	1328	1317	1308	858
45°	1118	1106	1079	1060	1053	863
55°	846	836	814	793	784	757
65°	571	560	542	526	517	564
75°	299	295	286	276	279	319
85°	73	71	69	64	62	86
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1849.0	1849.0	1849.0	1849.0	1849.0
2.5°	1859.8	1850.9	1831.3	1849.0	1845.6
5°	1849.0	1842.0	1822.4	1836.6	1833.2
7.5°	1836.6	1826.0	1806.4	1820.7	1817.2
10°	1817.2	1804.7	1783.3	1797.5	1792.2
12.5°	1790.4	1779.8	1758.5	1767.3	1763.8
15°	1760.1	1749.6	1726.4	1733.6	1724.7
17.5°	1722.8	1712.3	1689.1	1697.9	1689.1
20°	1681.9	1671.4	1646.4	1651.7	1644.7
22.5°	1641.2	1625.1	1601.9	1601.9	1598.3
25°	1593.0	1578.9	1548.7	1552.1	1548.7
27.5°	1539.6	1527.2	1504.2	1498.9	1490.1
30°	1486.5	1472.1	1445.6	1440.3	1433.0
32.5°	1429.5	1418.9	1390.4	1379.7	1372.5
35°	1374.4	1356.7	1328.2	1317.4	1308.5
37.5°	1312.2	1296.1	1267.7	1255.2	1246.3
40°	1248.2	1233.9	1205.4	1189.6	1182.4
42.5°	1185.9	1171.6	1143.3	1125.4	1114.8
45°	1118.5	1105.9	1079.2	1059.8	1052.6
47.5°	1052.6	1040.1	1011.7	992.1	981.4
50°	983.2	974.3	949.4	924.5	915.6
52.5°	915.6	903.2	880.1	860.6	848.2
55°	846.4	835.6	814.3	793.0	784.2
57.5°	777.0	768.2	745.0	723.7	716.4
60°	707.6	700.6	675.7	656.1	650.8
62.5°	640.0	627.6	609.8	592.1	585.0
65°	570.8	560.1	542.4	526.3	517.4
67.5°	499.7	490.6	474.8	462.4	455.2
70°	433.9	426.7	410.7	398.2	391.2
72.5°	366.3	359.2	350.3	337.9	332.6
75°	298.6	295.3	286.1	275.6	279.2
77.5°	238.2	231.1	227.5	222.2	216.9
80°	177.9	176.0	172.4	167.1	163.5
82.5°	120.9	120.9	119.2	112.1	112.1
85°	72.8	71.1	69.4	63.9	62.3
87.5°	32.1	28.5	24.9	19.6	17.7
90°	0.0	0.0	0.0	0.0	0.0

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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	16.40	18.01	16.76	18.32	18.64	15.95	17.56	16.32	17.88	18.19
	3H	18.15	19.60	18.52	19.93	20.29	17.66	19.11	18.03	19.44	19.80
	4H	18.79	20.16	19.19	20.51	20.89	18.30	19.67	18.70	20.01	20.39
	6H	19.26	20.53	19.67	20.89	21.29	18.76	20.03	19.17	20.39	20.78
	8H	19.40	20.62	19.83	21.00	21.40	18.90	20.11	19.33	20.50	20.90
	12H	19.49	20.65	19.92	21.04	21.47	18.98	20.14	19.41	20.52	20.95
4H	2H	16.96	18.33	17.36	18.67	19.05	16.60	17.97	17.00	18.32	18.70
	3H	18.93	20.08	19.34	20.48	20.88	18.52	19.67	18.93	20.07	20.47
	4H	19.71	20.74	20.14	21.16	21.59	19.28	20.32	19.72	20.73	21.17
	6H	20.30	21.21	20.76	21.65	22.11	19.87	20.78	20.33	21.22	21.67
	8H	20.49	21.34	20.95	21.78	22.25	20.06	20.90	20.52	21.34	21.81
	12H	20.63	21.39	21.11	21.86	22.33	20.17	20.93	20.65	21.41	21.88
8H	4H	19.98	20.83	20.44	21.27	21.74	19.61	20.45	20.07	20.90	21.36
	6H	20.70	21.40	21.19	21.89	22.36	20.31	21.02	20.81	21.51	21.98
	8H	20.95	21.59	21.46	22.09	22.58	20.56	21.19	21.07	21.70	22.19
	12H	21.15	21.71	21.66	22.20	22.76	20.74	21.30	21.25	21.79	22.35
12H	4H	20.01	20.77	20.49	21.24	21.71	19.64	20.40	20.12	20.88	21.35
	6H	20.74	21.37	21.25	21.88	22.37	20.37	21.00	20.88	21.51	22.00
	8H	21.05	21.61	21.56	22.10	22.66	20.68	21.23	21.18	21.73	22.29