

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: P930227

Luminaire Tested: DFN2DS-HX3F0-080DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930227
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-HX3F0-080DS927-FLL
Description: 3 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

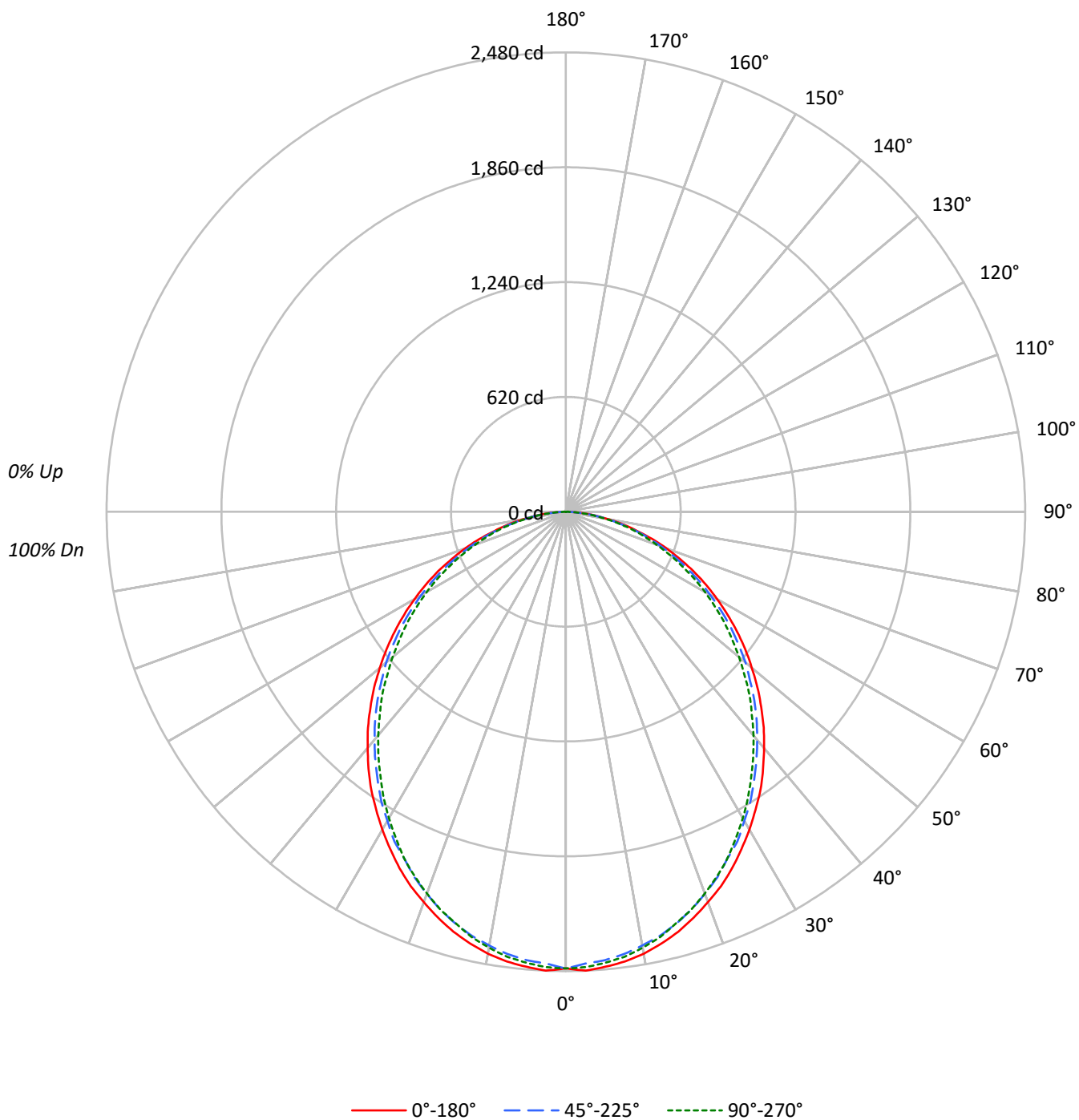
Lumens per Lamp: N/A
Luminaire Lumens: 6272.6 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.28' x L: 2.84' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	2856	2856	2856
5°	2867	2825	2842
10°	2850	2797	2811
15°	2814	2760	2758
20°	2764	2706	2703
25°	2715	2639	2639
30°	2651	2578	2556
35°	2591	2504	2467
40°	2517	2430	2384
45°	2443	2357	2299
50°	2362	2281	2200
55°	2279	2193	2111
60°	2186	2087	2010
65°	2086	1982	1891
70°	1959	1855	1767
75°	1782	1708	1666
80°	1582	1534	1454
85°	1291	1231	1103

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2443 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.0	3.7
10°-20°	652.9	10.4
20°-30°	959.5	15.3
30°-40°	1114.4	17.8
40°-50°	1113.0	17.7
50°-60°	970.5	15.5
60°-70°	717.4	11.4
70°-80°	405.9	6.5
80°-90°	107.1	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°	1844.4	29.4
0°-40°	2958.8	47.2
0°-60°	5042.2	80.4
0°-90°	6272.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6272.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2465	2465	2465	2465	2465	
5°	2465	2456	2430	2449	2444	234
15°	2347	2333	2302	2312	2300	661
25°	2124	2105	2065	2070	2065	977
35°	1832	1809	1771	1757	1745	1144
45°	1491	1475	1439	1413	1404	1151
55°	1128	1114	1086	1057	1046	1009
65°	761	747	723	702	690	752
75°	398	394	382	368	372	425
85°	97	95	93	85	83	114
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2465.3	2465.3	2465.3	2465.3	2465.3
2.5°	2479.7	2467.9	2441.7	2465.3	2460.8
5°	2465.3	2456.1	2429.9	2448.8	2444.3
7.5°	2448.8	2434.7	2408.6	2427.6	2422.9
10°	2422.9	2406.3	2377.8	2396.7	2389.7
12.5°	2387.2	2373.1	2344.6	2356.4	2351.7
15°	2346.9	2332.8	2301.9	2311.5	2299.7
17.5°	2297.1	2283.0	2252.1	2263.9	2252.1
20°	2242.5	2228.5	2195.3	2202.3	2193.0
22.5°	2188.2	2166.8	2135.9	2135.9	2131.1
25°	2124.1	2105.2	2065.0	2069.5	2065.0
27.5°	2052.9	2036.3	2005.6	1998.5	1986.7
30°	1982.0	1962.8	1927.4	1920.4	1910.8
32.5°	1906.0	1891.9	1853.9	1839.6	1830.1
35°	1832.5	1808.9	1770.9	1756.6	1744.8
37.5°	1749.5	1728.1	1690.2	1673.6	1661.8
40°	1664.3	1645.1	1607.2	1586.1	1576.5
42.5°	1581.3	1562.1	1524.4	1500.5	1486.5
45°	1491.3	1474.6	1438.9	1413.0	1403.5
47.5°	1403.5	1386.9	1348.9	1322.7	1308.6
50°	1310.9	1299.1	1265.9	1232.7	1220.9
52.5°	1220.9	1204.2	1173.6	1147.4	1130.8
55°	1128.5	1114.2	1085.8	1057.4	1045.5
57.5°	1036.0	1024.2	993.2	964.8	955.2
60°	943.4	934.2	900.9	874.8	867.7
62.5°	853.4	836.8	813.1	789.5	780.0
65°	761.1	746.8	723.1	701.7	689.9
67.5°	666.2	654.2	633.0	616.5	606.9
70°	578.5	568.9	547.6	531.0	521.6
72.5°	488.4	478.9	467.0	450.5	443.4
75°	398.1	393.6	381.6	367.5	372.2
77.5°	317.7	308.1	303.3	296.3	289.2
80°	237.2	234.7	229.9	222.9	218.0
82.5°	161.3	161.3	159.0	149.4	149.4
85°	97.1	94.8	92.6	85.3	83.0
87.5°	42.8	38.0	33.2	26.1	23.7
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	14.93	16.54	15.29	16.85	17.17	14.48	16.09	14.85	16.41	16.72
	3H	16.68	18.13	17.06	18.46	18.82	16.19	17.64	16.56	17.97	18.33
	4H	17.32	18.69	17.72	19.04	19.42	16.83	18.20	17.23	18.55	18.92
	6H	17.79	19.06	18.20	19.43	19.82	17.29	18.56	17.70	18.93	19.32
	8H	17.94	19.15	18.36	19.54	19.94	17.43	18.64	17.86	19.03	19.43
	12H	18.03	19.19	18.46	19.57	20.00	17.51	18.67	17.94	19.06	19.49
4H	2H	15.49	16.86	15.89	17.21	17.58	15.14	16.50	15.53	16.85	17.23
	3H	17.46	18.61	17.87	19.01	19.41	17.06	18.20	17.47	18.60	19.00
	4H	18.24	19.28	18.67	19.69	20.13	17.82	18.85	18.25	19.27	19.70
	6H	18.84	19.74	19.29	20.18	20.64	18.40	19.31	18.86	19.75	20.21
	8H	19.03	19.87	19.49	20.32	20.78	18.59	19.43	19.05	19.88	20.34
	12H	19.16	19.92	19.64	20.39	20.86	18.71	19.47	19.19	19.94	20.41
8H	4H	18.51	19.36	18.97	19.80	20.27	18.14	18.99	18.60	19.43	19.89
	6H	19.23	19.93	19.72	20.42	20.89	18.85	19.55	19.34	20.04	20.51
	8H	19.49	20.12	20.00	20.62	21.11	19.10	19.73	19.61	20.23	20.72
	12H	19.69	20.25	20.19	20.74	21.30	19.27	19.83	19.78	20.32	20.88
12H	4H	18.54	19.30	19.02	19.78	20.24	18.18	18.94	18.66	19.41	19.88
	6H	19.27	19.91	19.78	20.41	20.90	18.90	19.54	19.41	20.04	20.53
	8H	19.59	20.15	20.09	20.64	21.20	19.21	19.77	19.72	20.26	20.82