

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: P930058

Luminaire Tested: DFN2DS-HX2F0-030DS830-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930058
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-HX2F0-030DS830-RLL
Description: 2 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

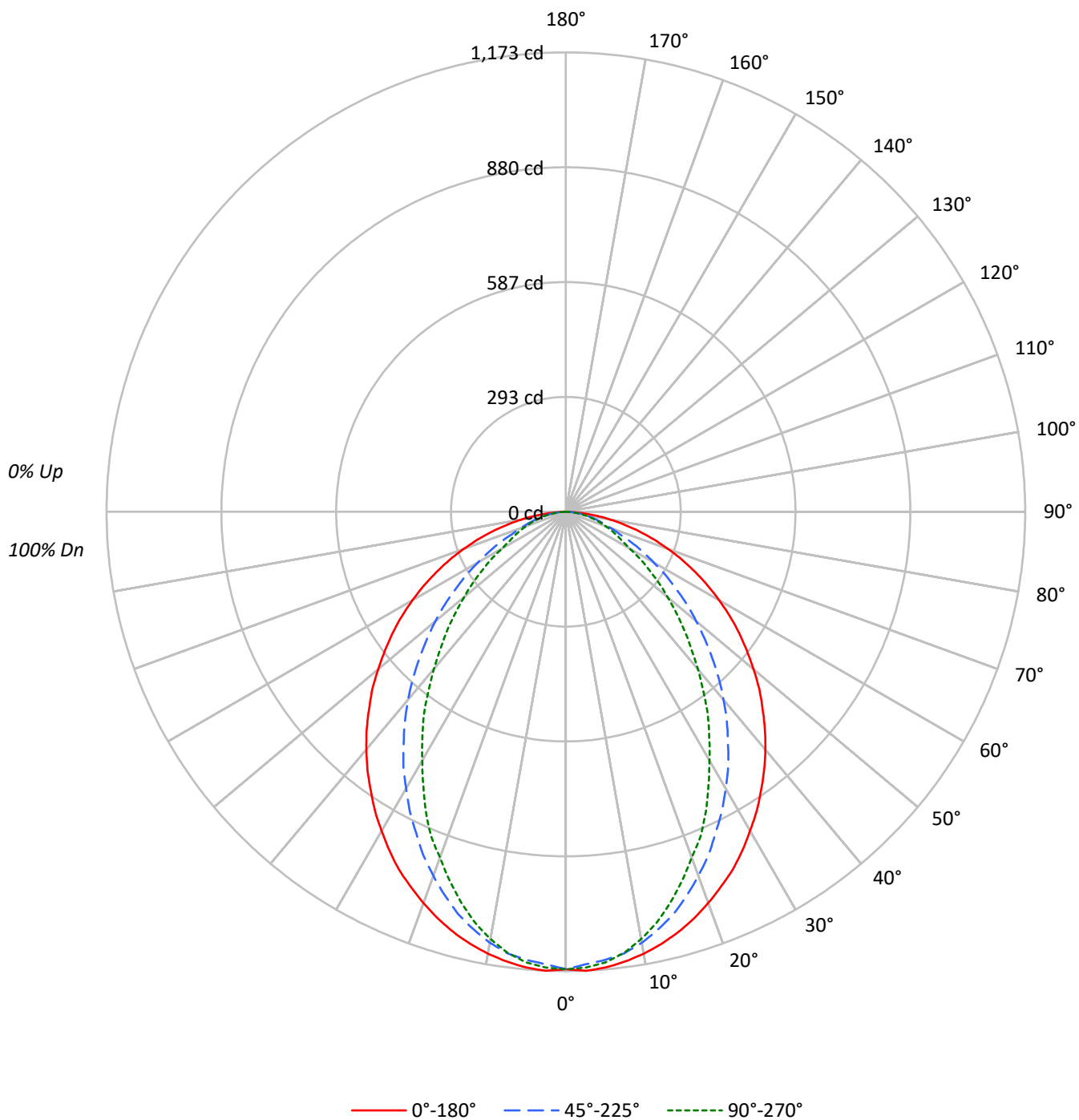
Lumens per Lamp: N/A
Luminaire Lumens: 2402.1 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9951
Total Harmonic Distortion (THDi): 0.07
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	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°	2752	2752	2752
5°	2762	2718	2732
10°	2741	2673	2650
15°	2710	2594	2519
20°	2666	2481	2356
25°	2622	2352	2198
30°	2560	2220	1996
35°	2499	2076	1818
40°	2438	1928	1613
45°	2367	1761	1426
50°	2294	1593	1244
55°	2218	1411	1068
60°	2131	1220	887
65°	2033	1025	807
70°	1915	845	743
75°	1770	770	693
80°	1563	688	631
85°	1227	543	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2367 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.5	4.6
10°-20°	300.5	12.5
20°-30°	421.9	17.6
30°-40°	459.9	19.1
40°-50°	422.7	17.6
50°-60°	332.0	13.8
60°-70°	216.1	9.0
70°-80°	111.2	4.6
80°-90°	28.4	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°	831.9	34.6
0°-40°	1291.8	53.8
0°-60°	2046.4	85.2
0°-90°	2402.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2402.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1168	1163	1149	1158	1155	111
15°	1111	1099	1063	1043	1033	313
25°	1008	974	905	862	846	464
35°	869	815	722	655	632	544
45°	710	639	529	453	428	549
55°	540	458	344	280	260	483
65°	365	279	184	148	145	362
75°	194	120	85	77	76	206
85°	45	23	20	20	20	54
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1168.0	1168.0	1168.0	1168.0	1168.0
2.5°	1173.3	1168.0	1156.3	1166.9	1164.9
5°	1168.0	1162.7	1149.0	1158.5	1155.3
7.5°	1158.5	1152.2	1137.4	1141.5	1136.2
10°	1145.8	1138.4	1117.3	1114.0	1107.8
12.5°	1129.9	1120.4	1091.9	1085.6	1073.9
15°	1110.9	1099.2	1063.3	1043.3	1032.7
17.5°	1088.7	1071.8	1027.3	1004.2	987.2
20°	1063.3	1042.1	989.3	963.0	939.6
22.5°	1035.9	1011.5	950.2	914.3	898.5
25°	1008.4	974.5	904.8	861.5	845.5
27.5°	975.6	939.6	862.5	812.9	788.5
30°	940.8	900.6	816.0	762.2	733.5
32.5°	906.9	858.3	771.7	708.2	681.7
35°	868.9	814.9	721.9	655.3	632.1
37.5°	831.9	773.7	675.4	602.4	576.1
40°	792.8	729.4	626.8	551.7	524.3
42.5°	752.6	685.0	578.2	499.9	473.5
45°	710.4	639.4	528.6	453.4	428.0
47.5°	670.1	595.2	481.0	405.8	382.6
50°	625.8	550.7	434.5	361.4	339.3
52.5°	582.3	503.1	390.1	320.3	300.2
55°	540.0	457.6	343.5	280.2	260.1
57.5°	496.8	412.2	302.4	243.1	226.2
60°	452.3	367.9	259.0	205.1	188.2
62.5°	409.1	324.5	221.9	171.3	162.9
65°	364.6	279.0	183.9	148.0	144.8
67.5°	322.4	236.7	148.0	130.0	126.8
70°	278.0	195.6	122.6	112.0	107.8
72.5°	235.7	157.4	102.5	94.1	91.9
75°	194.4	120.5	84.6	77.1	76.1
77.5°	153.3	85.5	66.6	62.4	60.2
80°	115.2	61.3	50.7	46.5	46.5
82.5°	80.3	41.3	34.9	32.8	32.8
85°	45.4	23.2	20.1	20.1	20.1
87.5°	17.0	8.4	8.4	7.4	7.4
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	14.75	16.27	15.12	16.59	16.90	10.71	12.23	11.08	12.55	12.86
	3H	16.52	17.88	16.89	18.21	18.57	11.98	13.34	12.35	13.67	14.03
	4H	17.18	18.46	17.58	18.81	19.19	12.48	13.76	12.88	14.11	14.49
	6H	17.67	18.85	18.08	19.22	19.61	12.86	14.04	13.27	14.41	14.80
	8H	17.84	18.96	18.26	19.35	19.75	12.98	14.11	13.41	14.50	14.90
	12H	17.94	19.02	18.37	19.40	19.83	13.07	14.14	13.50	14.53	14.95
4H	2H	14.86	16.14	15.26	16.48	16.86	11.41	12.69	11.81	13.04	13.42
	3H	16.79	17.85	17.20	18.25	18.65	12.85	13.91	13.26	14.31	14.71
	4H	17.54	18.49	17.97	18.91	19.35	13.45	14.41	13.88	14.82	15.26
	6H	18.13	18.96	18.59	19.40	19.86	13.94	14.77	14.39	15.21	15.67
	8H	18.34	19.12	18.81	19.57	20.03	14.10	14.88	14.56	15.32	15.79
	12H	18.50	19.19	18.98	19.67	20.14	14.22	14.91	14.70	15.39	15.86
8H	4H	17.56	18.34	18.03	18.78	19.25	13.80	14.58	14.27	15.02	15.49
	6H	18.20	18.84	18.70	19.33	19.81	14.39	15.03	14.89	15.52	16.00
	8H	18.45	19.03	18.96	19.54	20.02	14.61	15.19	15.13	15.70	16.19
	12H	18.65	19.16	19.16	19.66	20.22	14.79	15.30	15.30	15.79	16.36
12H	4H	17.55	18.24	18.03	18.72	19.19	13.85	14.54	14.33	15.02	15.49
	6H	18.18	18.76	18.69	19.27	19.76	14.45	15.03	14.97	15.54	16.03
	8H	18.47	18.98	18.97	19.47	20.03	14.73	15.24	15.24	15.73	16.29

END OF REPORT