

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242954

Luminaire Tested: **S121DR-H685D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242954
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H685D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2581.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

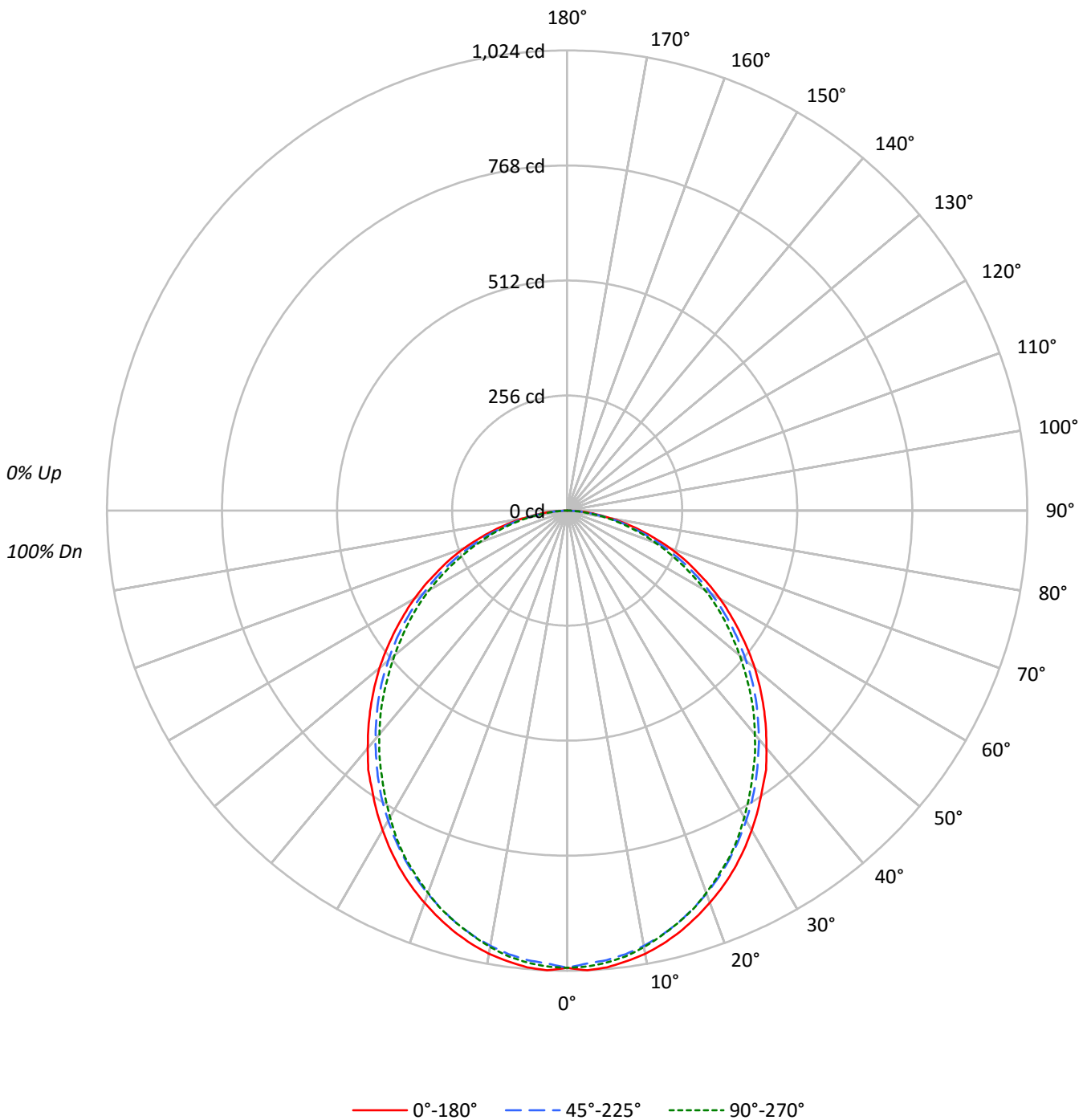
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	97	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	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30145	30145	30145
5°	30344	29868	30034
10°	30129	29587	29675
15°	29761	29153	29153
20°	29283	28602	28542
25°	28760	27959	27867
30°	28099	27258	26970
35°	27385	26499	26022
40°	26696	25675	25130
45°	25917	24890	24182
50°	25122	23947	23122
55°	24160	23039	22161
60°	23301	21962	21007
65°	22148	20760	19631
70°	20991	19275	18054
75°	19210	17481	16405
80°	16739	15442	14316
85°	14414	11865	9927



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	3.7
10°-20°	269.7	10.5
20°-30°	396.6	15.4
30°-40°	460.2	17.8
40°-50°	459.0	17.8
50°-60°	399.6	15.5
60°-70°	294.1	11.4
70°-80°	163.8	6.3
80°-90°	42.1	1.6
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°	762.2	29.5
0°-40°	1222.4	47.4
0°-60°	2081.0	80.6
0°-90°	2581.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2581.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1017	1017	1017	1017	1017	
5°	1020	1015	1004	1012	1010	97
15°	970	965	950	954	950	273
25°	880	869	855	855	852	405
35°	757	748	733	724	719	474
45°	618	608	594	582	577	477
55°	468	459	446	434	429	419
65°	316	309	296	284	280	314
75°	168	160	153	146	143	178
85°	42	40	35	30	29	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1017.4	1017.4	1017.4	1017.4	1017.4
2.5°	1024.0	1018.3	1008.9	1017.4	1015.5
5°	1020.2	1014.6	1004.2	1011.7	1009.8
7.5°	1011.7	1007.0	995.7	1002.3	1000.4
10°	1001.4	995.7	983.4	989.1	986.3
12.5°	987.2	982.5	968.4	973.1	969.3
15°	970.2	964.6	950.4	954.2	950.4
17.5°	950.4	944.8	929.7	932.5	930.6
20°	928.7	921.2	907.1	908.9	905.2
22.5°	905.2	896.7	882.5	882.5	878.8
25°	879.7	869.3	855.2	855.2	852.4
27.5°	851.4	842.0	826.9	825.0	822.2
30°	821.3	811.8	796.7	793.0	788.3
32.5°	790.1	779.8	765.6	759.0	754.3
35°	757.1	747.7	732.6	724.1	719.4
37.5°	727.0	713.8	697.7	690.2	686.4
40°	690.2	678.9	663.8	653.4	649.7
42.5°	654.4	644.0	628.0	617.6	614.8
45°	618.5	608.2	594.0	581.8	577.1
47.5°	581.8	571.4	557.2	545.0	538.4
50°	545.0	534.6	519.5	507.3	501.6
52.5°	506.3	498.8	482.8	471.4	463.9
55°	467.7	459.2	446.0	433.7	429.0
57.5°	430.0	422.4	408.3	395.1	392.2
60°	393.2	385.6	370.6	359.2	354.5
62.5°	354.5	347.0	332.8	321.5	316.8
65°	315.9	309.3	296.1	283.8	280.0
67.5°	280.0	271.6	259.3	248.0	243.3
70°	242.3	232.9	222.5	213.1	208.4
72.5°	204.6	197.1	188.6	179.1	177.3
75°	167.8	160.3	152.7	146.1	143.3
77.5°	132.9	127.3	121.6	115.0	113.1
80°	98.1	94.3	90.5	85.8	83.9
82.5°	68.8	66.0	60.3	56.6	54.7
85°	42.4	39.6	34.9	30.2	29.2
87.5°	19.8	16.0	12.3	10.4	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)