

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: P242095

Luminaire Tested: **S121DR-S880D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242095
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S880D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3542.0 lumens
Efficiency: N/A
Efficacy: 101.8 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

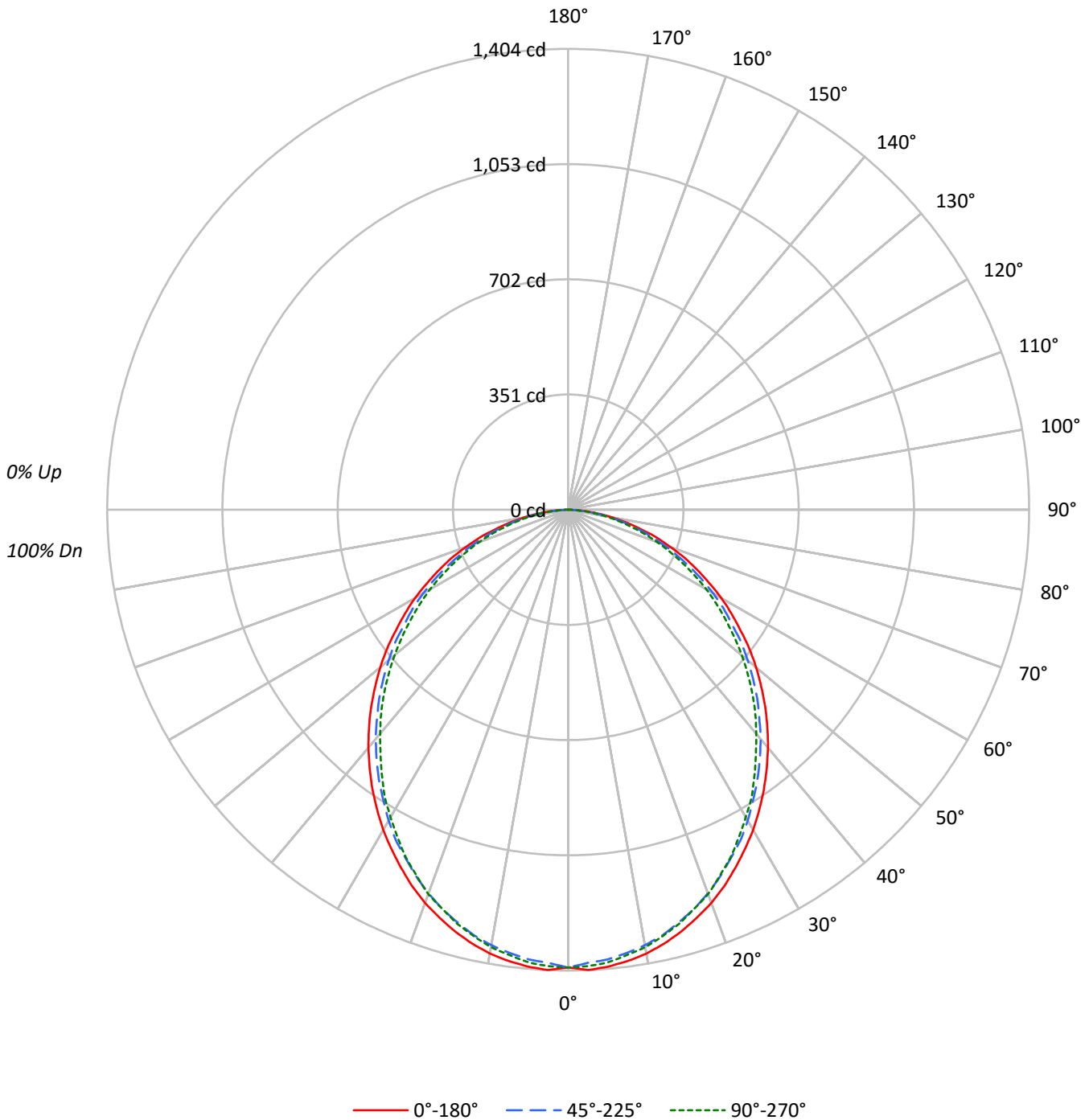
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	75	80	76	73	71
3	91	80	72	66	88	79	71	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°	41325	41325	41325
5°	41560	40908	41176
10°	41303	40530	40722
15°	40807	39939	40058
20°	40199	39225	39307
25°	39365	38313	38228
30°	38552	37409	37012
35°	37593	36334	35777
40°	36613	35267	34471
45°	35563	34105	33241
50°	34429	32889	31820
55°	33061	31403	30271
60°	31899	30222	28847
65°	30337	28352	26908
70°	28562	26440	24993
75°	26239	24029	22404
80°	23291	21090	19554
85°	19276	15774	14006



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.4	3.7
10°-20°	369.8	10.4
20°-30°	543.9	15.4
30°-40°	631.6	17.8
40°-50°	630.1	17.8
50°-60°	548.3	15.5
60°-70°	403.9	11.4
70°-80°	225.0	6.4
80°-90°	58.0	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°	1045.1	29.5
0°-40°	1676.7	47.3
0°-60°	2855.1	80.6
0°-90°	3542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3542.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1395	1395	1395	1395	1395	
5°	1397	1391	1375	1387	1384	133
15°	1330	1320	1302	1311	1306	375
25°	1204	1191	1172	1174	1169	555
35°	1039	1026	1004	994	989	650
45°	849	834	814	798	793	654
55°	640	632	608	596	586	574
65°	433	424	404	392	384	430
75°	229	223	210	201	196	244
85°	57	54	46	44	41	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1394.7	1394.7	1394.7	1394.7	1394.7
2.5°	1403.7	1396.0	1381.8	1393.4	1392.1
5°	1397.3	1390.9	1375.4	1387.0	1384.4
7.5°	1387.0	1379.3	1362.5	1372.8	1369.0
10°	1372.8	1365.1	1347.1	1354.8	1353.5
12.5°	1353.5	1344.5	1327.7	1334.2	1330.3
15°	1330.3	1320.0	1302.0	1311.0	1305.9
17.5°	1303.3	1291.7	1274.9	1280.1	1274.9
20°	1274.9	1262.1	1244.0	1249.2	1246.6
22.5°	1241.5	1229.9	1209.3	1211.8	1206.7
25°	1204.1	1191.2	1171.9	1174.5	1169.3
27.5°	1165.5	1153.9	1135.9	1132.0	1125.6
30°	1126.8	1112.7	1093.4	1088.2	1081.8
32.5°	1083.1	1070.2	1048.3	1043.1	1039.3
35°	1039.3	1026.4	1004.5	994.2	989.1
37.5°	992.9	980.0	958.1	946.6	938.8
40°	946.6	932.4	911.8	900.2	891.2
42.5°	897.6	884.7	861.6	850.0	843.5
45°	848.7	834.5	813.9	798.5	793.3
47.5°	797.2	784.3	763.7	746.9	741.8
50°	746.9	732.8	713.5	696.7	690.3
52.5°	695.4	682.5	664.5	647.8	637.5
55°	640.0	632.3	607.9	596.3	586.0
57.5°	589.8	580.8	561.5	542.2	535.7
60°	538.3	528.0	510.0	493.2	486.8
62.5°	484.2	476.5	458.5	443.0	434.0
65°	432.7	423.7	404.4	391.5	383.8
67.5°	385.1	373.5	354.2	341.3	334.8
70°	329.7	320.7	305.2	294.9	288.5
72.5°	282.0	271.7	257.6	247.3	240.8
75°	229.2	222.8	209.9	200.9	195.7
77.5°	182.9	173.9	164.8	158.4	154.5
80°	136.5	130.1	123.6	117.2	114.6
82.5°	95.3	90.1	83.7	79.8	76.0
85°	56.7	54.1	46.4	43.8	41.2
87.5°	27.0	23.2	15.5	14.2	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)