

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: P242086

Luminaire Tested: **S121DR-S880D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242086
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-S880D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3305.8 lumens
Efficiency: N/A
Efficacy: 95.0 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

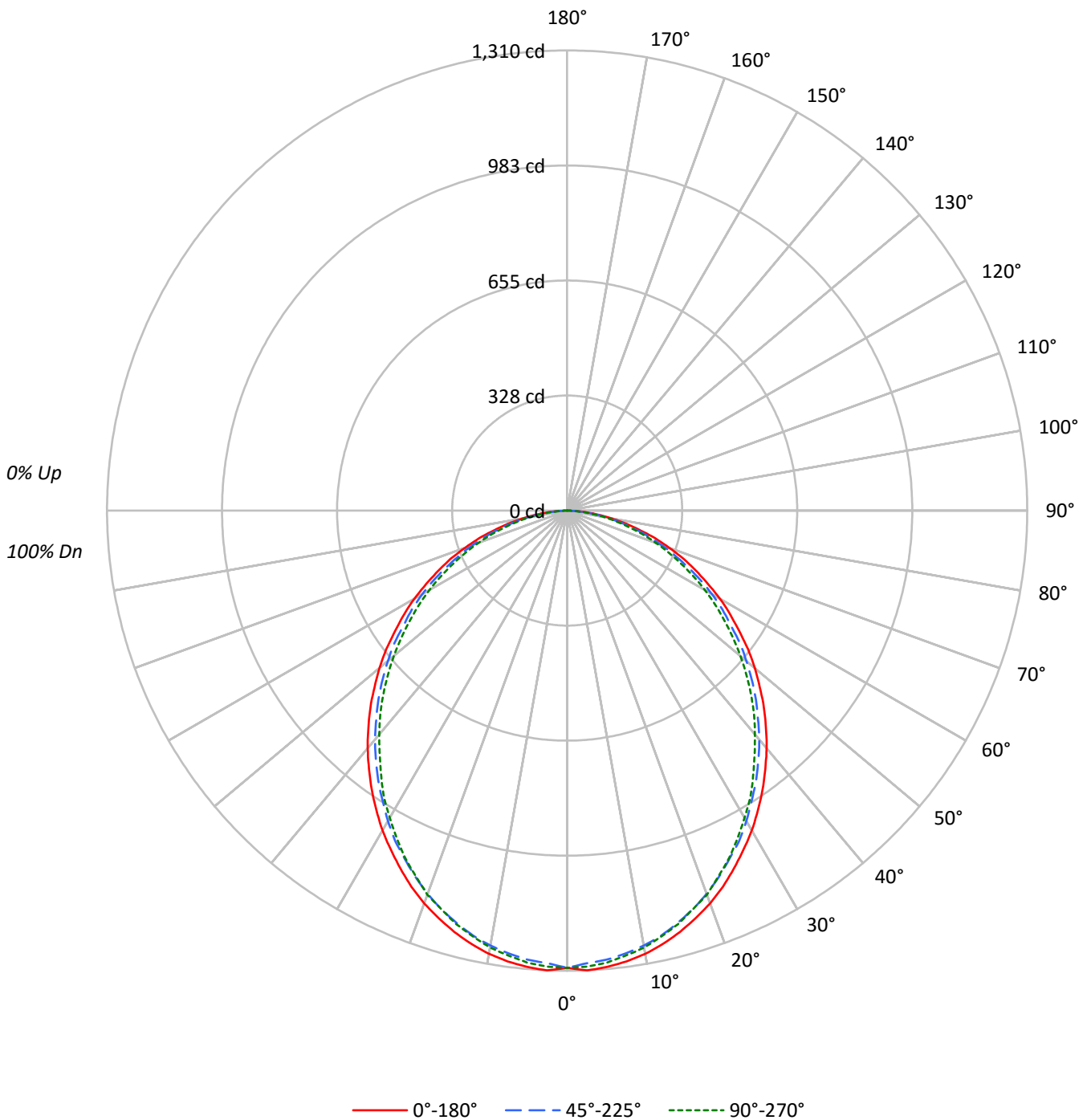
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	38569	38569	38569
5°	38788	38181	38431
10°	38550	37828	38009
15°	38086	37276	37387
20°	37522	36611	36687
25°	36740	35759	35681
30°	35982	34915	34545
35°	35086	33910	33390
40°	34173	32916	32173
45°	33191	31829	31025
50°	32133	30695	29699
55°	30860	29305	28252
60°	29772	28207	26922
65°	28317	26459	25113
70°	26656	24681	23321
75°	24499	22427	20916
80°	21738	19691	18257
85°	17984	14720	13089



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.6	3.7
10°-20°	345.2	10.4
20°-30°	507.7	15.4
30°-40°	589.5	17.8
40°-50°	588.1	17.8
50°-60°	511.8	15.5
60°-70°	376.9	11.4
70°-80°	210.0	6.4
80°-90°	54.2	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°	975.4	29.5
0°-40°	1564.9	47.3
0°-60°	2664.8	80.6
0°-90°	3305.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3305.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1304	1298	1284	1294	1292	124
15°	1242	1232	1215	1224	1219	350
25°	1124	1112	1094	1096	1091	518
35°	970	958	938	928	923	607
45°	792	779	760	745	740	611
55°	597	590	567	556	547	536
65°	404	395	377	365	358	401
75°	214	208	196	188	183	228
85°	53	50	43	41	38	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1301.7	1301.7	1301.7	1301.7	1301.7
2.5°	1310.2	1302.9	1289.7	1300.5	1299.3
5°	1304.1	1298.1	1283.7	1294.5	1292.1
7.5°	1294.5	1287.3	1271.7	1281.3	1277.7
10°	1281.3	1274.1	1257.3	1264.5	1263.3
12.5°	1263.3	1254.9	1239.2	1245.2	1241.6
15°	1241.6	1232.0	1215.2	1223.6	1218.8
17.5°	1216.4	1205.6	1190.0	1194.8	1190.0
20°	1190.0	1177.9	1161.1	1165.9	1163.5
22.5°	1158.7	1147.9	1128.7	1131.1	1126.2
25°	1123.8	1111.8	1093.8	1096.2	1091.4
27.5°	1087.8	1077.0	1060.1	1056.5	1050.5
30°	1051.7	1038.5	1020.5	1015.7	1009.7
32.5°	1010.9	998.8	978.4	973.6	970.0
35°	970.0	958.0	937.5	927.9	923.1
37.5°	926.7	914.7	894.3	883.5	876.2
40°	883.5	870.2	851.0	840.2	831.8
42.5°	837.8	825.8	804.1	793.3	787.3
45°	792.1	778.9	759.6	745.2	740.4
47.5°	744.0	732.0	712.8	697.1	692.3
50°	697.1	683.9	665.9	650.3	644.3
52.5°	649.1	637.0	620.2	604.6	595.0
55°	597.4	590.2	567.3	556.5	546.9
57.5°	550.5	542.1	524.1	506.0	500.0
60°	502.4	492.8	476.0	460.4	454.3
62.5°	451.9	444.7	427.9	413.5	405.1
65°	403.9	395.4	377.4	365.4	358.2
67.5°	359.4	348.6	330.5	318.5	312.5
70°	307.7	299.3	284.9	275.3	269.2
72.5°	263.2	253.6	240.4	230.8	224.8
75°	214.0	207.9	195.9	187.5	182.7
77.5°	170.7	162.3	153.9	147.8	144.2
80°	127.4	121.4	115.4	109.4	107.0
82.5°	88.9	84.1	78.1	74.5	70.9
85°	52.9	50.5	43.3	40.9	38.5
87.5°	25.2	21.6	14.4	13.2	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)