

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: P242955

Luminaire Tested: **S121DR-H880D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242955
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-H880D840-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: 3328.6 lumens
Efficiency: N/A
Efficacy: 105.7 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

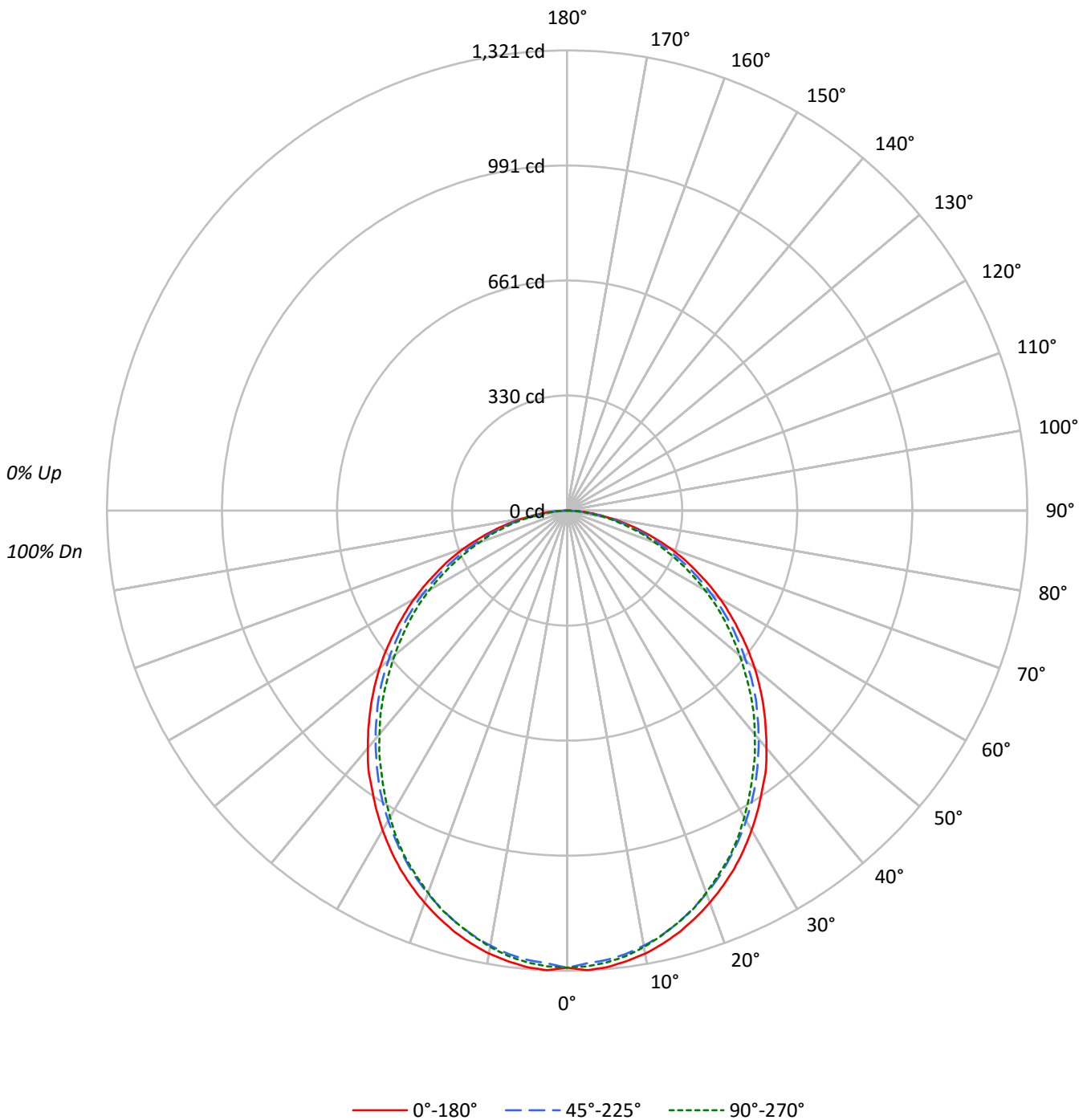
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	80	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°	38874	38874	38874
5°	39133	38517	38734
10°	38854	38159	38267
15°	38380	37598	37598
20°	37765	36885	36806
25°	37090	36057	35936
30°	36235	35154	34781
35°	35318	34175	33560
40°	34428	33109	32405
45°	33426	32102	31184
50°	32396	30884	29819
55°	31155	29714	28582
60°	30050	28320	27093
65°	28563	26768	25317
70°	27072	24863	23278
75°	24774	22553	21156
80°	21585	19913	18462
85°	18596	15298	12817



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	3.7
10°-20°	347.8	10.5
20°-30°	511.4	15.4
30°-40°	593.5	17.8
40°-50°	592.0	17.8
50°-60°	515.3	15.5
60°-70°	379.3	11.4
70°-80°	211.2	6.3
80°-90°	54.3	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°	982.9	29.5
0°-40°	1576.4	47.4
0°-60°	2683.7	80.6
0°-90°	3328.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3328.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1316	1308	1295	1305	1302	125
15°	1251	1244	1226	1231	1226	353
25°	1134	1121	1103	1103	1099	522
35°	976	964	945	934	928	612
45°	798	784	766	750	744	615
55°	603	592	575	559	553	540
65°	407	399	382	366	361	405
75°	216	207	197	188	185	230
85°	55	51	45	39	38	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1312.0	1312.0	1312.0	1312.0	1312.0
2.5°	1320.6	1313.3	1301.1	1312.0	1309.6
5°	1315.7	1308.4	1295.0	1304.7	1302.3
7.5°	1304.7	1298.7	1284.1	1292.6	1290.2
10°	1291.4	1284.1	1268.3	1275.6	1271.9
12.5°	1273.1	1267.1	1248.8	1254.9	1250.0
15°	1251.2	1243.9	1225.7	1230.6	1225.7
17.5°	1225.7	1218.4	1199.0	1202.6	1200.2
20°	1197.7	1188.0	1169.8	1172.2	1167.3
22.5°	1167.3	1156.4	1138.2	1138.2	1133.3
25°	1134.5	1121.1	1102.9	1102.9	1099.2
27.5°	1098.0	1085.9	1066.4	1064.0	1060.3
30°	1059.1	1047.0	1027.5	1022.6	1016.6
32.5°	1019.0	1005.6	987.4	978.9	972.8
35°	976.4	964.3	944.8	933.9	927.8
37.5°	937.5	920.5	899.8	890.1	885.2
40°	890.1	875.5	856.0	842.7	837.8
42.5°	843.9	830.5	809.8	796.5	792.8
45°	797.7	784.3	766.1	750.3	744.2
47.5°	750.3	736.9	718.6	702.8	694.3
50°	702.8	689.5	670.0	654.2	646.9
52.5°	653.0	643.3	622.6	608.0	598.3
55°	603.1	592.2	575.2	559.4	553.3
57.5°	554.5	544.8	526.5	509.5	505.8
60°	507.1	497.3	477.9	463.3	457.2
62.5°	457.2	447.5	429.2	414.6	408.6
65°	407.4	398.8	381.8	366.0	361.1
67.5°	361.1	350.2	334.4	319.8	313.7
70°	312.5	300.3	287.0	274.8	268.7
72.5°	263.9	254.1	243.2	231.0	228.6
75°	216.4	206.7	197.0	188.5	184.8
77.5°	171.5	164.2	156.9	148.3	145.9
80°	126.5	121.6	116.7	110.7	108.2
82.5°	88.8	85.1	77.8	73.0	70.5
85°	54.7	51.1	45.0	38.9	37.7
87.5°	25.5	20.7	15.8	13.4	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)