

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: P242950

Luminaire Tested: **S121DR-H880D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242950
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-H880D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3296.1 lumens
Efficiency: N/A
Efficacy: 104.6 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

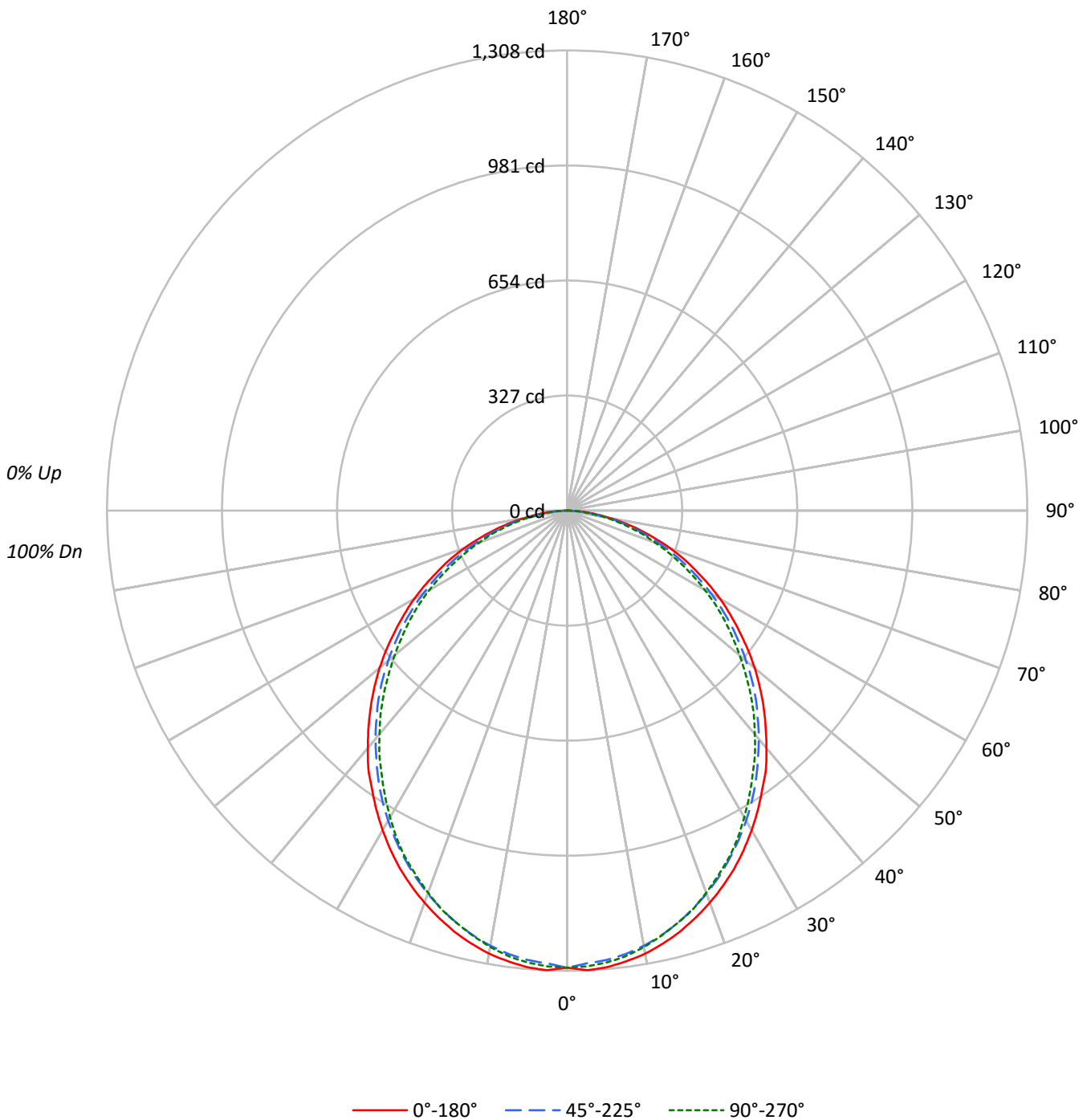
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60					60			
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52					52			
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45					45			
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39					39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31					31			
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38495	38495	38495
5°	38749	38142	38356
10°	38475	37786	37894
15°	38006	37230	37230
20°	37396	36523	36447
25°	36727	35704	35586
30°	35883	34812	34439
35°	34974	33842	33230
40°	34092	32788	32088
45°	33099	31787	30878
50°	32083	30584	29529
55°	30850	29419	28303
60°	29754	28042	26827
65°	28282	26509	25071
70°	26812	24621	23053
75°	24533	22335	20950
80°	21363	19725	18292
85°	18426	15162	12681



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.4	3.7
10°-20°	344.4	10.5
20°-30°	506.4	15.4
30°-40°	587.7	17.8
40°-50°	586.2	17.8
50°-60°	510.3	15.5
60°-70°	375.6	11.4
70°-80°	209.2	6.3
80°-90°	53.8	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°	973.3	29.5
0°-40°	1561.0	47.4
0°-60°	2657.5	80.6
0°-90°	3296.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3296.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1299	1299	1299	1299	1299	
5°	1303	1296	1282	1292	1290	124
15°	1239	1232	1214	1219	1214	349
25°	1123	1110	1092	1092	1088	517
35°	967	955	936	925	919	606
45°	790	777	759	743	737	609
55°	597	586	570	554	548	535
65°	403	395	378	362	358	401
75°	214	205	195	187	183	227
85°	54	51	45	38	37	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1299.2	1299.2	1299.2	1299.2	1299.2
2.5°	1307.7	1300.4	1288.4	1299.2	1296.8
5°	1302.8	1295.6	1282.4	1292.0	1289.6
7.5°	1292.0	1286.0	1271.5	1280.0	1277.6
10°	1278.8	1271.5	1255.9	1263.1	1259.5
12.5°	1260.7	1254.7	1236.6	1242.6	1237.8
15°	1239.0	1231.8	1213.7	1218.6	1213.7
17.5°	1213.7	1206.5	1187.2	1190.9	1188.4
20°	1186.0	1176.4	1158.3	1160.8	1155.9
22.5°	1155.9	1145.1	1127.0	1127.0	1122.2
25°	1123.4	1110.2	1092.1	1092.1	1088.5
27.5°	1087.3	1075.3	1056.0	1053.6	1050.0
30°	1048.8	1036.7	1017.5	1012.6	1006.6
32.5°	1009.0	995.8	977.7	969.3	963.3
35°	966.9	954.9	935.6	924.7	918.7
37.5°	928.4	911.5	891.0	881.4	876.6
40°	881.4	867.0	847.7	834.4	829.6
42.5°	835.6	822.4	801.9	788.7	785.1
45°	789.9	776.6	758.6	742.9	736.9
47.5°	742.9	729.7	711.6	696.0	687.5
50°	696.0	682.7	663.5	647.8	640.6
52.5°	646.6	637.0	616.5	602.1	592.4
55°	597.2	586.4	569.5	553.9	547.9
57.5°	549.1	539.4	521.4	504.5	500.9
60°	502.1	492.5	473.2	458.8	452.7
62.5°	452.7	443.1	425.0	410.6	404.6
65°	403.4	394.9	378.1	362.4	357.6
67.5°	357.6	346.8	331.1	316.7	310.7
70°	309.5	297.4	284.2	272.1	266.1
72.5°	261.3	251.7	240.8	228.8	226.4
75°	214.3	204.7	195.1	186.6	183.0
77.5°	169.8	162.6	155.3	146.9	144.5
80°	125.2	120.4	115.6	109.6	107.2
82.5°	87.9	84.3	77.1	72.2	69.8
85°	54.2	50.6	44.6	38.5	37.3
87.5°	25.3	20.5	15.7	13.2	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)